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АНГЛИЙСКИЙ ЯЗЫК

ПРАКТИЧЕСКОЕ ПОСОБИЕ
для аспирантов и магистрантов

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Практическое пособие предназначено для аспирантов, магистрантов и научных работников, готовящихся к сдаче кандидатского экзамена по английскому языку. В пособие вошли тематические разделы, содержащие в себе ряд упражнений, направленных на развитие комплекса навыков диалогического и монологического общения.

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СОДЕРЖАНИЕ

Введение

Предлагаемое практическое пособие предназначено для работы в группах аспирантов, магистрантов и научных работников, готовящихся к сдаче кандидатского экзамена по английскому языку. Помимо этого пособие может быть использовано при работе в студенческих группах с углубленным изучением английского языка для развития навыков чтения и говорения по теме «My Studies».

Целью пособия является развитие коммуникативных умений и навыков различных видов речевой деятельности, а также навыков реферирования научной литературы.

Пособие состоит из семи разделов, каждый из которых включает ряд упражнений для развития лексико-грамматических навыков диалогического общения. Оригинальные тексты по темам разделов, а также комплекс условно-речевых и речевых упражнений, коммуникативных ситуаций диалогической и монологической речи, входящие в настоящее практическое пособие, отвечают принципам современной коммуникативной методики.

При отборе текстов авторы стремились к тому, чтобы каждый текст носил общенаучный характер и был насыщен лексикой, связанной с научной работой.

Активный лексический и грамматический минимум определяется темами пособия.

Тема 1 Special Lexics (1)

Exercise 1 Read and translate the international words without a dictionary:

analysis, engineer, experiment, experimental, practice, material, process, specialist, practical, specialization, project, fundamental, synthesis, maximum, minimum, result, diagram, system, programme, apparatus, theory, theoretical, institute, laboratory, instrument, effect, economy, economic, effective, criterion, history, hypothesis, formula.

Exercise 2 Translate the following words and word combinations:

experimental study, special application, applied sciences, pure sciences, higher degree, natural law, accurate measurements, team's activity, to conduct research, measuring instruments, research purposes, final results, invention, readings, basic research, practical benefits, purely theoretical investigation, complex research, programme, reliable data, discovery, experimentation, innovation, joint experiments, natural sciences, effective methods, to study thoroughly, important achievements, to make recordings, statistical processing of data, supporters (protagonists) of the hypothesis, the crux (essence) of the matter, a set of auxiliary equipment, to devise new methods, to arrive at (to come to) a conclusion, general trends, to have the necessary skills for research work, to put into production, to display one' achievements, scientific work, a man of science, accelerated introduction of scientific and technological achievements in production.

Exercise 3 Give English equivalents to the following words and word combinations:

проведение эксперимента, прикладные науки, ученая степень, проводит исследование, точные измерения, изобретение, неценные данные, открытие важные достижения, совместные эксперименты, статистическая обработкаа данных, эффективные методы, актуальная проблема, под руководством научный руководитель, ученый, новые направления исследование экспериментальные результаты.

Exercise 4 Find synonyms in the list below, arrange them in pairs:

1) to invent, paper, to use, evidence, supervision, trial, collaboration, modem, research, to offer, to finish, aim, instrument, to carry out, to apply, purpose, to research, to contribute to, outstanding, out-of-date, idea, procedure, teamwork;

2) up-to-date, article, to complete, apparatus, distinguished, to conduct, test, method, to suggest, to create, investigation, data, to make a contribution to, old, to investigate, concept.

Exercise 5 Replace the underlined words by their synonyms:

1 Scientists are constantly researching the causes of major diseases.

2 The information in all reference books is carefully checked for accuracy.

3 By that method, it would take four people three days to complete the work.

4 His presence contributed to the success of what would otherwise have been; very ordinary affair.

5 I haven't the slightest idea of what you're talking about.

6 If we apply teamwork, we'll finish the job much sooner

7 Under his supervision, the lab became one of the best at the institute.

8 The plan he offered is to be discussed next day.

9 The method developed has bean applied success fully.

10 Before thinking of anything else, your immediate goal should be to complete your thesis.

11 He carried out hundreds of experiments in support of this hypothesis.

12 These devices are being used both for research purposes and for tackling many problems in the national economy.

13 This effect can sometimes be used to advantage in the design of novel devices.

14 All the experimental results were taken at the test run.

15 The findings of current research will definitely be utilized in highly affective technologies of the next century.

16 The author of the monograph is a distinguished scientist.

Exercise 6 Find antonyms in the list below, arrange them in pairs:

1) old, to study, collaboration, command, knowledge, recent, collaboration, understanding, to approach, distinguished, to end, explore, to use, tell the truth, evidence;

2) delusion, to neglect, up-to-date, to offer, ignorance, unknown, consent, to start, disproof, modern, hide, to withdraw, misunderstanding, separation, to waste, to forswear.

Exercise 7 Transform the sentences using antonyms to the underlined words:

1 She has enough knowledge about the subject to write a good book.

2 They offered us many solutions to a problem.

3 The results of the research weren't up-to-date.

4 Mark is studying under a well-known professor at the moment.

5 The work was done in collaboration with other scientists.

6 Sometimes it's obligatory to follow the commands given by colleagues.

7 Recent investigation have shown much progress in your work.

8 Understanding of the aim of your research is a key to success.

9 Its mathematics approaches mysticism.

10 The paper was written by a distinguished linguist.

11 He ended his remarks by quoting Lincoln.

12 We explore carefully all the material on the discourse.

13 She used the candlestick as a paperweight.

14 I expected him to tell me the truth.

15 The plain evidence of facts is superior to all declarations.

Exercise 8 Make up sentences according to the model and translate them:

Model: The evidence reported (I) is in good agreement with (2) the hypothesis available (I).

(1)	(2)
The data obtained	to be in agreement with
The findings presented	to be consistent with
The conclusions made	to be in keeping with
The evidence reported	to be in line with
The feels outlined	to be of interest
The Information available	to be of importance
The predictions made	to be of value
The observed values	to be in accordance with
This point of view	to be worthy of
This relationship	to be due to
The work mentioned	to be underway
The research reported	to be in progress
The results obtained	to be in use
The above statement	to be of significance
These reference books	to be available
The methods used	to be responsible for

Exercise 9 Translate the sentences. Use the underlined expressions in sentences of your own:

1 They are going to obtain some further information on the subject.

2 The work has bean under way for the last two years.

3 Work on this subject is still in progress.

4 This will result in ten to twenty fold increase in costs.

5 The observed effects are also indicative of such a possibility.

6 This finding is consistent with the results from the previous analysis.

7 This result is in accordance with recent observations.

8 The solution of this question is of paramount importance today.

9 These problems ware worthy of a more detailed study.

10 Research into these problems is of greet theoretical and practical interest.

Exercise 10 Fill in necessary prepositions:

1 Today the work of scientists ... this field is known ... the world.

2 When these points ate taken ... consideration, it becomes rather difficult to establish the real significance ... the method.

3 The obtained results are ... general agreement... observations reported ... other authors, except for some minor details.

4 In feet they not only succeeded ... demonstrating the phenomenon, but also were able ... the help ... a clever experimental trick, to measure the shift quantitatively.

5 This is not a book specially aimed ... chemists, but it has many features that an ... interest and much could be learned ... reading it.

6 Programs ... hundreds ... specific procedures will make it possible to put these

instruments ... immediate use ... most laboratories.

7 Although this case has received little attention so far, except ... some recent work, such analysis is important... increasing interest... these devices.

8 The causes ... these differences are still poorly understood and are partly responsible ... the state ... uncertainty ... the nature ... this phenomenon.

9 Material ... publication must be ... an urgent matter and be ...obvious scientific importance.

10 With this in mind, let us turn ... a topic that undoubtedly is ... major significance.

11 Studies ... several applications ... this system are ... progress and will be reported elsewhere.

12 The implementation ... a giant long-range project is already ... way.

Exercise 11 Complete the following sentences:

1 The new method enables then to ...

2 The results obtained will find broad application in ...

3 Several research institutes are working on the problem of...

4 Research has shown, however, that under certain conditions ...

5 For a long time attempts to solve this problem proved ...

6 This experimentation has the scientific and practical benefits in ...

7 The research is supervised by ...

8 She most promising approach is to find ...

9 The work carried out by these scientists is of ...

10 He is a scientist of some renown working on ...

11 These studies failed to demonstrate whether ...

12 Preliminary experiments indicated that it was necessary to ...

13 Our date have been interpreted on the assumption that ...

14 In attempting to judge the significance of these results it is important to know if ...

15 These studies stand in contrast to the work of ...

16 Another distinctive feature of this novel approach is ...

17 In the course of research we have found that ...

18 According to the vast majority of scientists and experts, the only way to solve the problem is to ...

19 Now in the world there have been developed various methods of ...

20 The new technique makes it possible to ...

Exercise 12 Translate the following sentences into English:

1 Развитие исследования в этом направлении может иметь большое практическое значение.

2 На основе анализа данных, имеющихся в литературе, а также результатов собственных наблюдений мы попытались несколько по-другому взглянуть на проблему и наметить пути ее решения.

3 Необходимость интегрирования накопленных к настоящему времени знаний подготовлена всем ходом развития исследований.

4 В этой работе имеются некоторые узкие места, которые не позволяют эффективно решать проблему.

5 Научно-техническая революция постоянно ставит перед учеными новые и все более важные задачи.

6 Как никогда раньше, остро стоит вопрос об увеличении эффективности научных исследований, их практической направленности.

7 Исследования проводятся по единой программе.

8 Известно, что много современных открытий рождается на «перекрестках» нескольких наук.

9 Первые исследования в этой области уже ведутся в различных институтах и лабораториях.

10 На семинарах при обсуждении докладов, статей, монографий происходит интенсивный обмен мыслями, генерируются новые идеи.

Grammar

Exercise 13 Use the right form of the verb *be*:

1 The information about the candidate exams ... encouraging. 2 All the equipment in the laboratory ... the latest design. 3 My knowledge of German ... very limited. 4 These analyses ... not appropriate in this study. 5 The theory ... vague. 6 This hypothesis ... difficult to prove. 7 The applied sciences ... more and more popular among young researchers. 8 The Government ... of the opinion that money in the accounts ... siphoned out of the country. 9 Measuring instruments... being used by the scientist. 10 The reliable data ... obtained by the researcher. 11 Statistical processing of data ... required. 12 A set of auxiliary equipment ... needed for this experiment. 13 The teamwork they did ... great. 14 ... the scales over there electronic? 15 These devices ... used for different purposes. 16 Yesterday's homework ... rather difficult. 17 The findings of current research ... announced. 18 Your advice ... very timely. Thank you. 19 The news ... too good to be true. 20 The team ... no more than seven young men. 21 The chair staff ... all very young. 22 The knowledge he had … due to his effort and hard work.

Тема 2 Special Lexics (2)

Exercise 1 Make up English-Russian pairs of words equivalent in meaning:

a) to publish, sphere, research, to include, importance, to develop, to collaborate, enterprise, scientific adviser, scientific degree, to be awarded, department, to encounter, branch, research team, data, to participate, to take post-graduate courses, to prove a thesis (dissertation);

b) защищать диссертацию, обучаться в аспирантуре, опубликовать, область, быть награжденным, включать, (научное) исследование, важность, кафедра, встречать(ся), исследовательская группа, данные (информация), разрабатывать, сотрудничать, участвовать, ученая степень, научный руководитель, предприятие, отрасль.

Exercise 2 Find synonyms in the list below, arrange them in pairs:

1) device, research, technology, branch, obtain, importance, collaborator, team, scientific adviser, to enable, thesis, journal, to prove a thesis, to collect, data, to encounter, to be engaged in, to be through with, scientific papers, rapidly;

2) quickly, publications, instrument, technique, to finish, to be busy with, field, to get, significance, to come across, information, to gather, coworker, group, supervisor, to defend a dissertation, scientific magazine, dissertation, to allow, investigation.

Exercise 3 Replace the underlined words by their synonyms:

1 The scientists from the laboratory use different labor-saving devices to achieve new results.

2 His researches have been fruitful.

3 A group of Byelorussian scientists have begun inventing new technologies which can be used in medicine.

4 This institute has many branches all over the world.

5 I climbed to obtain a general view of the surrounding scene.

6 It was a question of great importance to us.

7 Do you have many collaborators in your team?

8 Each time I have problems with writing an article I turn to my scientific advisor for help.

9 A dictionary enables every person to read foreign literature.

10 I don't know how long it will take me to prove my thesis.

11 He has been collecting all sorts of information on the development of the Internet for more than 20 years.

12 Satellites collect data on weather patterns and transmit it back to earth.

13 While studying theses I encountered much new information.

14 At the moment I'm engaged in scientific research.

15 When you're through with that book, will you lend it to me?

16 How many scientific papers have you published?

17 Science has been developing rapidly in the past few years.

Exercise 4 Find antonyms in the list below, arrange them in pairs:

1) theory, to obtain, rapidly, experimentator, to finish, to increase, new, experienced, unknown, wide, passive, to enable, high, complicated;

2) simple, low, practice, to give, to disable, active, slowly, theoretician, narrow, famous, to start, to decrease, old, inexperienced.

Exercise 5 Transform the sentences using antonyms to the underlined words:

1 She has a theory that drinking milk prevents colds.

2 The award he obtained gave him privileges.

3 Despite the fact the science develops rapidly scientists still have a lot to investigate.

4 An experimentator is a scientist who makes experiments of different kinds.

5 He finished the speech and sat down.

6 The physician increased the dosage from one to four pills.

7 Nothing new was said at the conference.
8 After 25 years of work he was considered to be an experienced worker.
9 Researchers who are unknown nowadays can become prominent some day.
10 This theory has got a wide spread.
11 His mind became merely passive.
12 I need software that could enable the keyboard.
13 His mind became merely passive.
14 This case is more complicated.

Exercise 6 Make up your own sentences using the expressions below (1, 2) and translate them:

(1)	(2)
What	to be a demon for work
After defending my thesis	to be a unit in their work
This professor	to be a whale at
Scientists have to	to be about
My supervisor	to be above one's head
The young scientists	to be above oneself
My collaborator	to be abreast of
The peace talks	to be against
This point of view	to be anxious for success
This relationship	to be armed with
The work	to be at a dead end
The researchers	to be at one's wit's end
The results obtained	to be at the high
The above statement	to be behind schedule
Lying	to be beyond question
The scientists	to be through the mill

Exercise 7 Translate the sentences. Use the underlined expressions in sentences of your own:

1 He was a demon for work.
2 We argued a lot but in that situation we were a unit.
3 He's a whale at doing jobs like that.
4 What are you about? – Business.
5 I wanted to hear the speaker, but most of what he said was above my head, so I fell asleep.
6 The children have been above themselves ever since the rain stopped.
7 Scientists have to be abreast of the latest discoveries and developments if they want to advance in their profession.
8 Driving without seat belts may soon be against the law.
9 All leading scientists of the world have always been anxious for success.
10 I am armed with a good knowledge of English to pass my exam successfully.
11 After days of arguing, the peace talks are now at a dead end.

12 After many years of studying the universe scientists were at their wit's end about its origin.

13 The quality of your work is at the high.

14 You are behind schedule with your paper so you have to hurry up a little.

15 You can't possibly think Sheila took your watch; her honesty is beyond question.

16 I had to be through the mill so that I could learn the job the hard way.

Exercise 8 Match the beginning of the sentence (1–15) with its ending (a–o):

1) The experiment
2) The mail
3) These machines
4) When can the new equipment
5) It's a pity the concert
6) Are the orders
7) If we use the old methods, a lot of time
8) Something important
9) No decisions
10) This monument
11) Offers
12) Have any interesting exhibitions or fairs
13) All these little wooden houses
14) The future church
15) The lost dog

a) been held recently?
b) was erected three hundred years ago.
c) was being looked for everywhere.
d) will be described in several journals.
e) are made and contracts are signed in this office.
f) is being designed by several well-known architects.
g) were built with very simple tools many years ago.
h) was not recorded,
i) are going to be tested again.
j) have been taken yet.
k) was being discussed, so I sat down to listen.
1) may be wasted and very little be achieved,
m) always fulfilled in time?
n) usually brought at 9 a.m.
o) be installed?

Exercise 9 Agree to the statements:

Use the following expressions of agreement:

You are right; You are quite (absolutely) right; It is quite true that …; What you say is correct …; I agree entirely with you …; N is definitely right when saying that … .

1 The majority of disadvantages have been eliminated, haven't they?
2 The first successes have already been scored, haven't they?
3 They hate received about a dozen certificates for inventions, haven't they?
4 The result obtained has surpassed all expectations, hasn't it?
5 So far this technique has been successful, hasn't it?
6 Plenty of information has been missed, hasn't it?
7 This work has become much more complicated, hasn't it?
8 A lot of questions have been raised, haven't they?
9 Scientists have already started systematic research into the problem, haven't they?
10 A large number of studies have been performed, haven't they?
11 This method has ceased to satisfy the experts, hasn't it?
12 The procedures used have been described in detail elsewhere, haven't they?
13 The possibility of this approach has been investigated, hasn't it?
14 In recent years, more emphasis has been placed on principle and leas on techniques, hasn't it?
15 These methods have been successfully tested, haven't they?

Exercise 10 Disagree to the statements:

Use the following expressions: I'm afraid you are wrong (mistaken); As a general rule you are quite right, but in this case I think …; What you say seems to be general opinion, but …; I agree with you to a certain extent, but …; A large part of what you say is true, but …; I disagree with your assessment ….

1 His friend has finished the experimental part of his dissertation, hasn't he?
2 Your colleagues do not assist you in your research. Am I right?
3 The article doesn't contain any valuable information, does it?
4 He has taken part in many international scientific conferences, hasn't he?
5 My coworker is rather an experimentator than a theoretical, isn't he?
6 He didn't use any new method in his research. Do you agree with me?
7 They have accumulated many facts about the phenomenon.
8 Rich scientific experience hasn’t been gained.
9 The method has developed been applied successfully.
10 The results of their research have attracted the attention of many scientists.
11 All the problems have been solved in this field.
12 Interesting results haven’t been obtained.
13 Research led to the emergence of a powerful technique.
14 Scientists tried to make future projections of the method.
15 This new approach has been successfully used.

Exercise 11 Choose the proper word:

Business – affair – thing – concern – matter:

business – 1) an occupation, profession, or trade; 2) an assignment or task; chore: *It's your business to wash the dishes now;* 3) something with which a person is rightfully concerned: *What they are doing is none of my business*;

affair – 1) anything done or to be done; anything requiring action or effort; business; concern: *an affair of great importance;* 2) an event or happening that occasions or arouses notoriety, dispute, and often public scandal; incident: *the Congressional bribery affair;*

thing – 1) a fact, circumstance, or state of affairs: *It is a curious thing*; 2) an action, deed, event, or performance: *to do great things; His death was a horrible thing;* 3) a particular, respect, or detail: *perfect in all things;* 4) aim; objective: *The thing is to reach this line with the ball;*

concern – 1) something that relates or pertains to a person; business; affair: *Law is the concern of lawyers;* 2) a matter that engages a person's attention, interest, or care, or that affects a person's welfare or happiness: *The party was no concern of his;* 3) worry, solicitude, or anxiety: *to show concern for someone in trouble;* 4) important relation or bearing: *This news is of concern to all of us;*

matter – 1) something of consequence: matter for serious thought; 2) importance or significance: *decisions of little matter; 3) difficulty; trouble (usually prec. by the): There is something the matter.*

1 Look here, Fowler, I thought you'd come here on …… .

2 What's the …… with him? He seems all funny today.

3 “Don't interfere with this, Frank,” he said, “this is my …….. entirely.”.

4 I’ve had lunch, Jack. But coffee would be the very …….. , also some brandy.

5 My dear old boy, you're a good chap and all that sort of thing, but this is ……. .

6 Even such a trivial …… as cooking an egg demands an attention.

7 “The best …… you can do, Stanley,” said Mr. Smith. “is to drop these silly tricks”.

8 I felt I had looked upon something personal to himself with which I had no …….. .

9 Can you throw any light on the …….. now?

10 There's one or two …… I'd like to know about, of course.

Brief – short:

brief – 1) lasting or taking a short time; of short duration: *a brief walk; a brief stay in the country;* 2) using few words; concise; succinct: *a brief report on weather conditions;* 3) abrupt or curt;

short – 1) having little length; not long; 2) having little height; not tall: *a short man;* 3) extending or reaching only a little way: *a short path;* 4) brief in duration; not extensive in time: *a short wait.*

1 After a …… interview he got into the car and drove to the airport.

2 The man wore dark glasses and a ……. beard.

3 He cut his speech …… .

4 The discussion was ……. but fruitful.

5 The lawn was covered with …… grass.

6 Don`t you find her skirt a bit ……. ?

7 It was a stupid mistake to quit the University a month ……. of graduation.

8 Bad news caught him ……... .

9 The car stopped …….. .

10 We are …… of cash.

Historic – historical:

historic – well-known or important in history: *a historic building; historic occasions;*

historical – 1) of, pertaining to, treating, or characteristic of history or past events: *historical records; historical research;* 2) based on or reconstructed from an event, custom, style, etc., in the past: *a historical reenactment of the battle of Gettysburg.*

1 In his ……. novel Walter Scott gave a wonderful description not only of …….. events, but of whole …… epochs.

2 To complete my report I need some …… data.

3 If you want to see the principal …… buildings and monuments in London, I advise you to begin with the Houses of Parliament.

4 Franklin D. Roosevelt did much to strengthen the bonds of …… friendship between the American and Russian peoples.

5 We cannot be sure whether King Arthur was a ……. figure.

Comfortable – convenient:

comfortable – 1)producing or affording physical comfort, support, or ease: *a comfortable chair; comfortable shoes;* 2) being in a state of physical or mental comfort; contented and undisturbed; at ease: *to be comfortable in new shoes; I don't feel comfortable in the same room with her;* 3) (of a person, situation, etc.) producing mental comfort or ease; easy to accommodate oneself to or associate with: *She's a comfortable person to be with;*

convenient – 1) suitable or agreeable to the needs or purpose; well-suited with respect to facility or ease in use; favorable, easy, or comfortable for use; 2) at hand; easily accessible: *Their house is convenient to all transportation.*

1 I like to sleep on a camp-bed, I find it very …….. .

2 I believe Friday the only ……. day for our meeting, we have only four lectures on that day.

3 Though the flat was rather ……., warm, light and cosy, it was not ……. for our work as it was rather small.

4 These shoes are very ……. for wear in wet weather as they have rubber soles.

5 She did everything possible to make the patient feel …… .

Admit – confess:

admit – to acknowledge; confess: *He admitted his guilt;*

confess – 1) to make confession; plead guilty; own: *to confess to a crime;* 2) to make confession of sins, esp. to a priest; 3) (of a priest) to hear confession.

1 I …… I`ve made a blunder.
2 Did the man ……. to having forget the will?
3 He will never …….. he may be wrong.
4 The question ……... of no delay.
5 The boy …… to stealing the apples.
6 He ….…… to his complicity in the crime.
7 The accused ……..…. his guilt to the police.
8 Many Christians regularly ……..…… to a priest.
9 This, I ……..…., is true.
10 You must ……..…. her statement to be doubtful.

Wait – expect – await:

wait – to remain or rest in expectation: *waiting for the guests to arrive;*

expect – to look forward to; regard as likely to happen; anticipate the occurrence or the coming of: *I expect to read it. I expect him later. She expects that they will come;*

await – to be in store for; be imminent: *A pleasant surprise awaits her in today's mail.*

1 Whom do you …….. to meet there?
2 After the hard day's work a well earned rest …….. you.
3 We …… you to dinner but as you didn't come we decided not to …… .
4 Jane …… to see Robert among her friends who came to see her off, but he wasn't there.
5 The train is …….. to be fifteen minutes late. Let's …….. here.
6 He always comes when he is least …… .
7 I wonder what …….. me there.
8 Please ……..….. a minute, I'll be right back.
9 Are you …… a letter today?
10 I'm sure that an interesting future …… him.

Exercise 12 Translate into English:

1 Наши конструкторы создают замечательные вещи.
2 В чем дело?
3 Прежде чем уехать, вы должны привести в порядок дела.
4 Я должен поговорить с вами по делу.
5 Я постараюсь быть кратким.
6 Становилось очень уютно, если передвинуть тот шкаф.
7 Я передал управляющему короткую записку, где объяснил причину моего ухода.
8 Это самое подходящее время для нашей встречи.
9 Война усугубила острый экономический кризис.
10 Верный исторической действительности, писатель изображает борьбу Людовика XI (Luise XI) против феодальной знати.

11 Он никогда не любил признавать свои ошибки.

12 Признаюсь, я давно хотел с вами познакомиться.

13 Нужно признаться, что наряду с достижениями в нашей работе имеется ряд недостатков.

14 Все ждали, что он начнет говорить, но он молчал.

15 После трудного дня их ждал заслуженный отдых.

16 Я думал, что вы согласитесь, я не ожидал от вас отказа.

Grammar

Exercise 13 Revise «Tenses: the Active and Passive Voice» and translate the following sentences:

a) *Open the brackets and put the verb into the correct tense:*

THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The Massachusetts Institute of Technology *(be)* an educational pioneer since its founding. It virtually *(create)* the modern profession of chemical engineering and *(be)* the first technological institution to recognize and provide for economics as an important element in the education of the engineer. The Institute *(be)* the first to establish courses in aeronautical engineering, architectural engineering, chemical engineering, food technology, industrial biology, marine engineering, and naval architecture.

The Institute *(take)* at present the leadership in upgrading and modernizing the education of engineers. Its Electrical Engineering Department *(lead)* the way by a drastic overhaul of its curriculum which *(embody)* a more fundamental approach to electrical engineering. This spirit *(find)* now rapid acceptance through the School of Engineering.

At present the Massachusetts Institute of Technology *(have)* the most comprehensive and varied research programme in the physical sciences and technology to be found in any one place in the world. It *(have)* at present under way 900 separate research projects. There *(be)* scarcely any aspect of American science and technology that *(not, touch)* – and advanced – by its creative activity.

b) *Open the brackets and put the verb into the correct tense:*

TROPICAL ECOLOGY IN INDIA

A symposium on “Ecological Problems in the Tropics” *(hold)* in Allahabad during February 3–5, 1961. The meetings *(attend)* by more than one hundred scientists from all parts of the country. Dr. Randhawa, vice-president of the Indian Council of Agricultural Research in his opening address specifically *(stress)* the importance of ecological research in various development projects that the Governement of India *(take)* now in hand. Dr. G. S. Puri, director of the Central Botanical Laboratory, Allahabad, who *(organize)* the symposium, *(point)* out the progress so far made in Indian ecology, and the need for a coordinated research programme in ecological studies in the tropics. He *(emphasize)* that the vegetation and animal life in the tropics *(raise)* problems peculiar to these climatic conditions.

Forty-five papers *(contribute)* to the symposium. A committee to implement and expand the results of the symposium and to raise the necessary funds needed for

supporting the project in co-operation with the International Society for Tropical Ecology *(form).*

c) *Translate into English:*

1 Они будут составлять план, как только дети лягут спать. 2 Как только он придет, я ему все расскажу. 3 Я поговорю с профессором до твоего приезда, но я не уверен, согласится ли он встретиться с тобой. 4 Я буду вам очень благодарен (grateful), если вы продиктуете (dictate) мне эту статью. 5 С вашей стороны будет очень глупо, если вы не воспользуетесь данной информацией.

d) *Open the brackets and put the verb into the correct tense. Mind the voice:*

THE INDIAN INSTITUTE OF SCIENCE

The Indian Institute of Science *(start)* with the Departments of Electrical Technology and Pure and Applied Chemistry. The Department of Biochemistry *(form)* in 1921. In 1935 when Sir C. V. Raman *(become)* the Director of the Institute, the Department of Physics *(start).* During the Second World War, the Department of Aeronautical Engineering *(establish).* After the War, a scheme of expansion *(plan).* This *(include)* improvement in and expansion of the existing departments.

The Institute *(be)* a pioneer in advanced instruction and research in science and engineering in India, and *(contribute)* substantially to the scientific and industrial development of the country. A number of industries *(establish)* as a result of the research carried out in the laboratories of the Institute. The facilities available in these laboratories *(make)* use of both by private and Government-owned industries.

e) *Translate into English using the Passive Voice:*

1 К сожалению, на конференции такие вопросы не затрагивались (touch upon). 2 Кто вам сказал, что соглашение (agreement) подписано? 3 Здесь говорят только на английском. 4 Ей разрешили заниматься психологией. 5 Кандидатские экзамены сдается осенью и весной. 6 Нам не разрешили войти в лабораторию. 7 В институте его многому научили. 8 За руководителем уже послано? – Да, ему позвонили и велели придти в восемь.

Тема 3 Lexics for Discussions

Exercises 1 Match English words and word-combinations with the corresponding Russian ones:

a) To take place; committee chairman; secretary-general; call for papers; short abstract; extended extract; summary of the presentation; manuscript of the paper; attendee; accommodation; information desk; key-note speaker; session; review paper; exhibition; proceedings of the conference; scientific associate; full member of the Academy of Science; to lecture; to take the floor; to take part in; poster session; scientific contribution; contributed paper; digest panel discussion.

b) Стендовое заседание; справочное бюро; научный доклад; обзор материалов; основной докладчик; иметь место; сборник материалов конференции; выступить; принимать участие; читать лекцию; председатель комитета; автореферат; участник; генеральный секретарь; краткий тезис; действительный член Академии наук; подробный тезис; заседание; выставка; научный сотрудник; рукопись доклада; дискуссия с участием ведущих специалистов; место проживания; приглашение на присылку материалов для публикации; научный вклад.

Exercises 2 Arrange in pairs the words which are close in meaning:

a) Participant, accommodation, speaker, to take place, exhibition, scientific associate, head, deputy director, to take the floor, to present a paper, seminar, overview paper, concurrent session, round table discussions.

b) To submit a paper, display, assistant director, round tables, attendee, reporter, chief, workshop, housing, research associate, review paper, parallel session, to be held, to speak.

Exercises 3 Arrange the following words in pairs of antonyms:

a) Success, dependence, in general, interested, significance, order, approximately, to win, up-date equipment, theoretician, formal discussion, include.

b) Exclude, out-date equipment, failure, disinterested, disorder, accurately, practitioner, independence, in particular, insignificance, to lose, informal discussion.

Exercises 4 Translate the following sentences into Russian:

1 I would like to discuss the concept of free market economy in this paper.

2 We would also welcome general summaries and reviews.

3 I would welcome any specific ideas on the topic for discussion.

4 I would like to start not with statements but with questions.

5 Could you make the picture brighter?

6 I would like to stress that this paper would not have been written if I hadn't received critical remarks of my research adviser.

Exercises 5 React to the wrong statements below. Use such introductory phrases as:

You are wrong; I'm afraid, you are not right; I'm afraid you are mistaken; you seem to be quite wrong; I can't agree with you.

1 The papers presented by the speakers at the last conference you attended were not interesting.

2 If I am not mistaken the last conference held at your University was in March.

3 As far as I could gather from the text, there aren’t any simultaneous sessions held during the congress.

4 To my mind the atmosphere of the conference hall can’t give good opportunities for relaxed discussions between groups of experts.

5 There will be a few participants from your department at the next conference.

6 It's unnecessary to submit a summary of your paper for the conference.

Exercises 6 Translate the sentences below using the given word-combinations:

Give a lecture (a reception, a talk, a translation)

1 Дайте перевод этого предложения. 2 Речь, произнесенная профессором С., привлекла всеобщее внимание. 3 В честь участников конференции устроили прием. 4 Мне понравились лекции, прочитанные доктором П. 5 Профессор П. выступил на открытии конгресса (in the opening session).

Hold a conference (a meeting, a discussion, an examination, a reception)

1 Экзамен будет проведен в июне. 2 Дискуссия, проведенная на утреннем заседании, привлекла всеобщее внимание. 3 Когда состоится собрание? 4 Председательствующий выступил на приеме, устроенном после конференции. 5 Когда была проведена дискуссия?

Make a contribution (comment, discovery, an experiment)

1 Замечания, сделанные руководителем, очень полезны. 2 Мы проделали серию опытов на прошлой неделе. 3 Сделанное им открытие привлекло всеобщее внимание. 4 А. Смит внес большой вклад в развитие науки экономики. 5 Я не собираюсь выступать с какими-либо замечаниями.

Exercises 7 Answer the following questions so that the answers would make a comprehensive account of your participation in the work of some scientific gathering. Use the following introductory phrases:

First of all, I'd like to tell you …; Frankly speaking, I …; To tell the truth, …; As for me, …; I must admit, …:

1 Have you ever had an opportunity to be present at a large scientific gathering?
2 Was it a regional or a national (international) conference (congress)?
3 When and where was it held?
4 Who was its president?
5 What was the most interesting paper presented at this scientific meeting?
6 How long did this conference last?
7 How many simultaneous sessions were held on the same day?
8 Was there any reception held after the final session?
9 Did you or any of your colleagues present papers at this conference?
10 Was your paper a success?
11 Was it discussed in detail?
12 Were there any discussions of general interest held during this conference?
13 What is your general impression of the conference?

Exercise 8 Comment on the following quotations. Use the following introductory phrases:

I think …; I believe…; I suppose …; In my view …; If you want my opinion …; It seemes to me…; It means …:

1 It is a capital mistake to theorize before one has data (Conan Doyle).

2 Activity is the only road to knowledge (G. B. Shaw).

3 The test of a man's breeding is how he behaves in a quarrel (G. B. Shaw).

4 Nothing is so firmly believed as what we least know (M. Montaigne).

5 No army can withstand the strength of an idea whose time has come (T. Hugo).

6 If you do not think about the future, you cannot have one (J. Galsworthy).

7 Education is the ability to listen to almost anything without losing your temper and your self-confidence (R. Frost).

8 It is better to understand a little than to misunderstand a lot (Anatole France).

9 Few people realize how little we know (G. B. Hill).

10 When people agree with me I always feel that I mast be wrong (O. Wilde).

11 Facts are not important, what is important is how we react to them (Andre Maurois).

12 Genius is two per cent inspiration end ninety-eight per cent perspiration (Thomas Edison).

Exercise 9 What does the author mean when he says:

1 Knowledge is boundless.

2 Knowledge is the most valuable wealth of our times.

3 Research work is carried out for the purpose of advancing man's knowledge.

4 The human thirst for cognition of the world will never be quenched.

Exercise 10 Express your opinion on the statements using the following word combinations:

To my mind …; In my opinion …; As far as I know,…; As far as I am concerned …:

1 As it often happens discoveries, be they large or small, are made by chance.

2 Many key discoveries lie at the crossroads of different sciences.

3 Scientific forecasts lead to new discoveries.

4 One shouldn't strive for false discoveries or cheap sensations.

5 Nowadays, a discovery is, as a rule, the result of a team effort rather than of a single person.

Exercise 11 Express your opinion on the statements concerning various traits of a scientist:

1 A real scientist tries to reveal something new where everything seems to be obvious and ready-made.

2 A scientist must have a thorough knowledge, serious special training, perfect mastery of the instruments, and the ability to cape with the impossible.

3 Tomorrow's specialist, irrespective of his profession, should be a man who is able to think for himself.

4 Researches are persistent and patient, and this, as is known, is a reason for success.

5 Training future cadres is considered to be an important criterion in assessing the activity of scientists.

6 In order to preserve his form, a good specialist must continuously read.

7 A scientist should make independent examination of the required literature, extract the necessary information, feel at home with the apparatus and learn to consider a given problem both separately and in the context of other related problems.

8 To be an effective investigator the modern specialist should know what has been discovered, what is being discovered and what is on the brink of discovery or at least under intensive research in his subject-field.

Exercise 12 Comment on the following statements:

1 A certain phenomenon is noticed by most of the specialists in a certain field, but it takes a certain type of person or researches teem to think somewhat differently as to how this phenomenon could be applied.

2 A method of analysis is really good when it may develop horizontally, i.e. when it is applicable to a wide class of phenomena.

3 A practical method will always be practicable, but a practicable method is not necessarily practical.

4 No modern large-scale investigation can be curried out except by a well blended team, consisting of persons equal as far as their scientific background is concerned or, as often happens, by a mixed, interdisciplinary team.

5 If you would ask a hundred scientists to describe the methods of science, you would probably get a hundred different answers.

6 Under laboratory conditions an experimenter can reveal many aspects of the problem earlier unknown to him.

7 Design work, if not accompanied by theoretical research, cannot produce high results.

8 Without theories there would be no science.

9 To arrive at a smooth and fair solution the "pros" and "cons" of all arguments have to be taken into consideration.

10 The history and logic of the development of science show, that the "impossible" simply requires a little more time, and sometimes - more chance.

11 Everything becomes known, as we are aware, in comparison.

Grammar

Exercise 13 Revise «The Article» and do the following tasks:

a) *Fill in the blanks with the appropriate article where necessary:*

1 Milton was . . . famous English poet. He was . . . author of “Paradise Lost”. 2 My scientific adviser is . . . distinguished scientist. He is . . . author of a great number of papers and monographs. 3 Marie Curie was . . . world-famous physicist. 4 Do you happen to know who was . . . author of modern quantum mechanics? 5 Newton is known as . . . discoverer of the Laws of Motion. 6 Thomas Hunt Morgan is . . . author of many books. 7 Columbus was . . . great explorer. He is . . . discoverer of America. 8 Popov is . . . inventor of radio. 9. Edison is well-known as . . . inventor.

10 Lomonosov managed to secure admission to . . . school by pretending to be . . . son of . . . nobleman. 11 In 1745 he returned to St. Petersburg and was appointed professor of . . . chemistry at . . . University. 12 Are you going to take post-graduate courses at . . . research institute? 13 Next month my friend is going to give . . . lecture at . . . Department of Plant Anatomy of . . . Institute of . . . Botany. 14 My younger brother goes to . . . school. He hopes to enter . . . University and study . . . physics. 15 Does your sister work as . . . secretary at . . . office or at . . . plant? 16 Dr. Ivanov is . . . secretary of . . . scientific council of . . . Department of . . . theoretical physics. 17 Hopkins was educated in … private schools. 18 . . . results of his research were generally recognized. 19 In 1899 he joined . . . illustrious school of … physiology. 20 … B/biochemistry was then entering its modern phase. 21 Hopkins became world-known among … important research and discoveries in … field of … biochemistry. 22 He based his experiments on … sound theoretical considerations. 23 He succeeded in isolating … new substance. 8. He was … reader on … chemical physiology. 24 He was … joint winner of … Nobel prize. 25 Dr. N. combines … deep theoretical knowledge with … great experimental skill. 26 My wife joined … laboratory two years ago. 27 While … student I joined … learned society. 28 My scientific adviser became known for his paper issued in … 1960s. 29 In what field do you do … research? 30 Do you base your work on … evidence provided by … experiment? 31 … L/last year I succeeded in passing my entrance examination and was admitted to … Institute. 1. This Institute was established . . . little over sixty years ago. 32 It is one of . . . first institutions of . . . new kind. It was devoted wholly to . . . fundamental research. 33 . . . researchers of . . . Institution have made . . . tremendous progress in. . . . twenty years. 34 This laboratory carries on . . . broad studies on . . . structure of. . . . universe. 35 At . . . present everybody must learn more about. . . . physical history of our planet. 36 . . . research of this laboratory covers . . . wide range of subjects. 37 One of . . . teams works in . . . field of . . . nuclear physics. 38 Another laboratory investigates.. . process of . . . manufacturing . . . organic matter. 39 Our Institute was established . . . little over twenty years ago. 40 It was devoted to . . . theoretical research. 41 Our laboratory conducts . . . broad studies in . . . various aspects of . . . inorganic chemistry. 42 What subjects does . . . research carried on at your laboratory cover? 43 Are you familiar with . . . structure of . . . chemical compounds? 44 Have you ever read any books on . . . genetics? 45 . . . three-story building is next to . . . Yale University Medical School. 46 . . . statue of John Pierce is standing to . . . right of . . . building. 47 John B. Pierce started . . . foundation of . . . Institution. 48 . . . G/grant from . . . National Institution of Health made possible . . . expansion of . . . original two-story building. 49 . . . P/present facilities contain many different laboratories. 50 These facilities still exist with . . . considerable modernization. 51 Our Institute occupies . . . five-story building. 52 On . . . left of . . . building of . . . Admiralty there is . . . bronze statue of Peter I. 53 What can you say about . . . activities of your laboratory? 54 . . . E/expansion of this Institute is . . . problem of . . . nearest future. 55 Who is . . . head of your Institute? 56 Dr. N. works on . . . effects of X-rays on . . . human beings.

b) *Fill in the blanks with the appropriate article where necessary:*
NATIONAL RESEARCH COUNCIL

… L/largest and most diversified program of … civil research in Canada is carried out by … National Research Council (NRC). Its laboratories are engaged in … many investigations of … interest to … Canadian industry. Some are undertaken on … initiative of … council itself in … order to develop … promising ideas of its own scientists; some are taken up on … recommendations of … Council's associate committees, which include … representatives from industry who are interested in … particular problems; and … others are undertaken in … co-operation with … individual companies. … Routine test work is avoided except when … Council is asked to certify …. performance of … equipment as … independent body.

Each problem presented to … Council is considered on its merits and dealt with in what seems … most practical way: those of … national interest may be undertaken at … expense of … Council; … expense of … company problems of less than national scope may be shared by … company and NRC; when … facilities are not available elsewhere, … specific industrial research may be undertaken by NRC, … results of which become … property of … company,

Тема 4 Computer Technologies in Doing Research

Exercise 1 Read and memorize the following words:

access – доступ;
advance – достижение;
to conduct – проводить;
daily routine – распорядок дня;
diverse – разный, разнообразный;
to download – загружать (в память);
earthquake – землетрясение;
on-line service – интерактивное (диалоговое) обсуждение;
option – выбор;
to restrict – ограничивать;
scholar – ученый;
science fiction – научная фантастика.

Exercise 2 Read the following international words and try to guess their meaning:

Computer technology, result, physical format, brochure, barrier, consult, bibliographical, electronic address, transmission, data, resource, global, distant, communicate, climate.

Exercise 3 Choose the words with similar meaning:

a) To restrict, to allow, option, advance, to conduct, global, significant, primarily, to improve, environment, competition, mission.

b) Right of choosing, progress, to limit, to permit, important, to direct, worldwide, to make better, essentially, contest, surroundings, assignment.

Exercise 4 Match up the words for proper combination:

1 routine;
2 service;
3 fiction;
4 advance;
5 research;
6 means;
7 environment.
a) user-friendly;
b) bibliographical;
c) on-line;
d) electronic;
e) science;
f) daily;
g) technological.

Exercise 5 Read and translate the following word combinations:

Physical access, diverse sources, research results, technological advance, area of information, global village, bibliographical research.

Exercise 6 Find the synonyms to the following words:

a) meaning, method, means, measure, subdivision, distinction, commodity, similarity, review, revision, repetition, repertoire, advantage, upgrade, work out;

b) implication, reconsideration, part, differentiation, raise to a higher grade, repertory, benefit, reiteration, survey, solve, likeness, convenience, quantity, manner, device.

Exercise 7 Match the given words with their definitions. Translate the words in italics:

1) meaning;
2) method;
3) means;
4) measure;
5) subdivision;
6) distinction;
7) commodity;
8) similarity;
9) processing
10) process
11) processor
12) processed;
13) review;

14) revision;
15) repetition;
16) repertoire;
17) advantage;
18) dictionary;
19) thesaurus;
20) vocabulary;
21) glossary.

a) the act or process of subdividing;
b) a process of revising;
c) likeness; resemblance;
d) the act of repeating; repeated action, performance, production, or presentation;
e) an instrumentality for accomplishing some end;
f) to bring about by work, effort, or action;
g) a list of terms in a special subject, field, or area of usage, with accompanying definitions;
h) an increase or improvement;
i) growth; progress;
j) a unit or standard of measurement;
k) a way of doing something, especially a systematic way; implies an orderly logical arrangement;
l) something that is conveyed or signified; sense or significance; Something that one wishes to convey, especially by language;
m) the recognizing or noting of differences;
n) something of use, advantage, or value;
o) the stock of words used by or known to a particular people or group of persons;
p) preparing or putting through a prescribed procedure;
q) a series of actions, changes, or functions bringing about a result;
u) any state, circumstance, opportunity, or means specially favorable to success, interest, or any desired end;
r) computer science) the part of a computer (a microprocessor chip) that does most of the data processing;
s) subjected to a special process or treatment;
t) a dictionary of synonyms and antonyms;
v) a book containing a selection of the words of a language, usually arranged alphabetically, giving information about their meanings, pronunciations, etymologies, inflected forms, etc., expressed in either the same or another language;
w) a critical article or report, as in a periodical, on a book, play, recital, or the like; critique; evaluation;
x) the entire stock of skills, techniques, or devices used in a particular field or occupation.

Exercise 8 Underline the correct word A, B, C, or D to fill in the gaps:

The 1_ of the terms *science* and *technology* have changed significantly from one generation to another. More 2_ than differences, however, can be found between the terms.

Both science and technology imply a thinking 3_, both are concerned with causal relationships in the material world, and both employ an experimental methodology that results in empirical demonstrations that can be verified by 4_. Science, at least in theory, is less concerned with the practicality of its results and more concerned with the 5_ of general laws, but in practice science and technology are inextricably involved 6_ each other. The varying interplay of the two can be observed in the historical development of such practitioners as chemists, engineers, 7_, astronomers, carpenters, potters, and many other specialists. Differing educational requirements, social status, 8_, methodology, and types of rewards, as well as institutional objectives and professional goals, contribute 9_ such distinctions as can be made between the activities of scientists and technologists; but throughout history the practitioners of "pure" science have made many 10_ as well as theoretical contributions.

Indeed, the concept that science provides the ideas for technological innovations and that 11_ research is therefore essential for any significant advancement in industrial civilization is essentially a 12_. Most of the greatest changes in industrial civilization cannot be traced to the laboratory. Fundamental tools and processes in the fields of 13_, chemistry, astronomy, metallurgy, and hydraulics were developed before the laws governing their functions were discovered. The steam 14_, for example, was commonplace before the science of thermodynamics elucidated the physical principles underlying its operations.

In recent years a sharp value distinction has grown up between science and technology. Advances in science have frequently had their bitter opponents, but today many people have come to fear technology much more than science. For these people, science may be perceived as a 15_, objective source for understanding the eternal laws of nature, whereas the practical manifestations of technology in the modem world now seem to them to be out of control.

1	A	meanings	B	methods	C	means	D	measure
2	A	subdivisions	B	distinctions	C	commodities	D	similarities
3	A	processing	B	process	C	processor	D	processed
4	A	review	B	revision	C	repetition	D	repertoire
5	A	advantage	B	upgrade	C	work out	D	development
6	A	on	B	with	C	of	D	without
7	A	physicists	B	physics	C	psychology	D	psychiatry
8	A	dictionary	B	thesaurus	C	vocabulary	D	glossary
9	A	at	B	to	C	in	D	on
10	A	practice	B	practicality	C	practitioner	D	practical
11	A	clean	B	pure	C	fresh	D	clear
12	A	myth	B	ballad	C	tale	D	legend

13	A	mechanic	B	mechanism	C	mechanics	D	mechanical
14	A	engineer	B	engine	C	engineering	D	engineered
15	A	serene	B	serenade	C	sequence	D	series

Exercise 9 Read the text carefully and find the information about diverse access to documents:

The link between information and computer technology has resulted in changes that until a few years ago were restricted to science fiction. Physical access to documents is no longer so important: on-line services, databases on CD-ROM, the

Internet, all make access possible to diverse sources of information. If the system allows downloading, if the research results can be printed, how much does access cost, if it is to a public source.. Reading is no longer the only form of access. Now the user has the option to format: brochures, CD-ROMs, videos, audio-books, etc.

Technological advance provoked an earthquake in the area of information, breaking barriers. The Global Village is a reality, changing people's daily routines, habits and customs. It is no longer necessary to go to Washington to consult the catalogue of the Library of Congress to conduct bibliographical research: its electronic address is the Open Sesame for researchers and scholars.

Exercise 10 What do you think?

1 Is the link between information and computer technology still science fiction?

2 Why is physical access to documents no longer so important?

3 Why is not reading the only form of access now?

4 Why did technological advance provoke an earthquake in the area of information?

Exercise 11 Read and translate the following words and word combinations:

To supersede, acquisition, unlimited access, capability, such as, access to networks, significant factor, primarily, by means of.

Exercise 12 Read and translate the text:

Internet

In the last years the classical function of libraries has been more and more superseded by various electronic information systems which enable exchange, acquisition and transmission of information, searching, processing and storage of data and reviewing and lending of library material. As to their resources and unlimited access, no classical library at present can be compared with their capabilities of providing information.

Generally speaking Internet is a global library. However, it is well known that it enables several different services, such as e-mail and access to distant computers and networks. So far, e-mail has been a significant factor in all areas of the Internet. Users of Internet may search for various data, exchange information and communicate with other users of Internet primarily by means of search engines such as Excite, Magellan, Point, Inktoml, Alta Vista, InfoSeek, Lycos, Open Text Index, Webcrawler, Yahoo, etc.

Exercise 13 Find in the text and translate the following combinations:

Заменяется различными электронно-информационными системами; накопление и передача информации; поиск, обработка и хранение данных; неограниченный доступ; способность обеспечивать информацией; вообще говоря; до сих пор, пока это.

Exercise 14 Answer the following questions:

1 How has the classical function of libraries been changed?

2 What services does Internet enable?

3 What may users of Internet search?

Exercise 15 Look through the text and do the tasks to it:

The Internet is the latest jewel in the crown of information technology. Also known as the information super-highway, it is an international infrastructure used for data communication which is becoming as popular and relied upon as the telephone.

The important characteristic of the Internet is its speed of information flow. Hence e-mail (electronic mail) travels much faster and is thus much preferred than traditional paper mail (also known as snail-mail). E-mail is also beginning to replace many phone calls. This is because e-mail allows the senders the ability to edit information before they post it. Also, e-mail allows the receiver to answer at their own leisure.

Another beneficial feature of the Internet, is that being supported mostly by academic and nonprofit organizations, the information is free (after an initial connection fee). This means that this technology is not greatly restricted to or dominated by any particular economic class. In fact, the huge amount of competition between Internet service providers means that the costs related to net-usage are even beginning to decline. The fact that the information is free to the end-user has also sparked a great deal of commercial interest. Many companies are investing time and money into net-advertisements. They hope that their free promotional material can tap into the new consumer market of the computer-user.

The Internet is also beginning to replace libraries as sources of research information. This is because it is current, very generalized for public consumption.

The net is also better than libraries for educational reasons. Its interactive nature, encourages and motivates students more into learning. The only draw-back is that the information is not as reliable and there are often difficulties in accessing and collecting electronic information, e.g. the crashing of computer servers.

Exercise 16 Translate into English:

1 Интернет становится таким же популярным, как и телефон.

2 Важной особенностью Интернета является скорость информационного потока.

3 Электронную почту чаще предпочитают традиционной бумажной.

4 Большой коммерческий интерес вызвал тот факт, что для конечного пользователя информация бесплатна.

5 Многие компании вкладывают деньги в рекламу в Internet.

6 Бесплатный рекламный материал может использоваться на новом потребительском рынке.

7 Информация, имеющаяся в сети не так надежна, как в библиотеке.

8 Часто возникают трудности в доступе и сборе электронной информации.

Exercise 17 Speak about:

a) Characteristic feature of E-mail;

b) The costs related to net-usage;

c) The problem of replacing libraries by the Internet.

Exercise 18 Read the text and retell it:

Unfortunately, the Internet does contain inbuilt values like most technologies.

On the Internet, English dominates, the United States of America is the source of most information and the information is generally a product of the pro-technology community. But despite these prejudices of the medium, the huge popularity of the Internet has led to end-users inventing ingenious ways to overcome these problems.

For example, the net allows for teleporting (via telnet facilities) to other countries. This is akin to having multiple foreign exchange students and similarly, encourages cultural bio-diversity. Also, information on the net often appears in other languages, of which Japanese and German are very common.

Vocabulary:

ingenious – оригинальный;

akin – сродни;

multiple – многократный.

Grammar

Exercise 19 Revise «The Adjective and the Adverb» and do the following tasks:

a) *Use the required form of the adjectives in the following sentences. Put* ***the*** *if necessary:*

1 Pollution and overpollution are two of (serious) problems in the world today.

2 The working conditions in the laboratory were bad, but the equipment was even (bad).

3 Mercury is (close) planet to the sun and Pluto is (far) planet from the sun.

4 He is (knowledgeable) about the situation than his colleague. I think he will succeed in his research.

5 At first I thought you were busy but really you are as (busy) as everybody else.

6 You looked depressed this morning but you look a bit (happy) now.

7 Everybody thinks that Jack is the (clever) of the three brothers.

8 I don’t think it matters in the (little) which method I choose.

9 “Today I am no (wise) than yesterday,” said Mr. George smiling.

10 The (near) library is three miles away.

11 The (near) item on the program is a report by Mr. Smith.

12 “Of the two evils let us choose the (little),” joked my supervisor.

13 He is a far (intelligent) person than his brother.

14 The Browns and Co have got three directors. The (old) is only 35 years old.

15 She had to wait a very long time. The longer she waited (much) impatient she became.

16 I am afraid the problem is much (complicated) than it seems.

17 It is a lot (easy) to learn a foreign language in the country where it is spoken.

c) *Translate into English:*

1 Чем больше он говорит, тем меньше его слушают. 2 Чем длиннее его доклад, тем меньше его слушают. 3 Чем скорее вы придитесь за работу, тем быстрее вы ее закончите. 4 Чем больше вы будете находиться библиотеке, тем лучше будут результаты вашей работы. 5 Чем меньше мы используем оборудования, тем больше вероятность провала нашего эксперимента.

e) *Translate into English paying attention to the adjeetrves end adverbs in bold type:*

1 У него сильно болит голова. Он едва может говорить. 2 Почему ты каждый день опаздываешь на занятия? Ты, наверное, встаешь слишком поздно. 3 Как ты себя чувствуешь сегодня? – Спасибо, хорошо. 4 Ты говоришь слишком быстро. Они тебя не понимают. 5 Я люблю присутствовать на конференциях. 6 Он не очень хорошо себя чувствует сейчас. 7 Он упорно готовится к экзаменам. 8 Я очень устал. Я плохо спал вчера ночью. 9 Он бегает очень быстро. 10 Я не видел его последнее время. 11 Ну же, Ник! Почему ты всегда работаешь так медленно? 12 Как приятно услышать хороший отзыв о работе! 13 Ее работа очень трудная. Ей приходится упорно работать. Она едва успевает поесть. 14 У нее беглый английский. Она говорит по-английски очень хорошо, но она не прекращает работу по его совершенствованию.

Тема 5 Post-graduate Courses in Our Country and Abroad

Exercise 1 Find the synonyms to the following words:

a) cause, objection, learn, attend, hard, lead, offer, teach, conduct, heavy, pursue, promise, instruct, accompany, weighty, hardly;

b) guide, effect, follow, carry, retort, proposal, pledge, request, train, educate, get knowledge, attend to, pay attention to, do, escort, bear, unclosing, difficult, ponderous, barely.

Exercise 2 Match the given words with their definitions. Translate the words in italics:

1) *cause;*
2) *objection;*
3) *learn;*
4) *attend;*

5) *hard;*
6) *lead;*
7) *offer;*
8) *teach;*
9) *conduct;*
10) *heavy;*
11) *pursue;*
12) *promise;*
13) *instruct;*
14) *accompany;*
15) *weighty;*
16) *hardly*;

a) difficult to do or accomplish; fatiguing; troublesome;

b) result in;

c) to go before or with to show the way; conduct or escort;

d) something, such as a suggestion, proposal, bid, or recommendation, that is offered;

e) to acquire knowledge of or skill in by study, instruction, or experience;

f) to direct in action or course; manage; carry on;

g) to follow in order to overtake, capture, kill, etc.;

h) to furnish with knowledge, esp. by a systematic method; teach; train; educate;

i) to impart knowledge of or skill in; give instruction in;

j) to take care of; minister to; devote one's services to;

k) of great weight; hard to lift or carry;

l) a reason or argument offered in disagreement, opposition, refusal, or disapproval;

m) a declaration that something will or will not be done, given, etc., by one;

n) to go along or in company with; join in action;

o) not at all; scarcely;

p) having considerable weight.

Exercise 3 Underline the correct word A, B, C, or D to fill in the gaps:

Higher education is becoming an extremely 1_ element in the organization of modern society. New dimensions of economic and technological competition at the regional and global levels have 2_ to new 3_ on education in the area of research. In order to become a top-level specialist one must 4_ to be a researcher. In fact many people are 5_ about research. They have fantastic ideas and crazy notions about what research is and who 6_ it. When many of us think of research, 7_ of scientists or chemists in labs or of physicists with gigantic particle accelerators, probably pop into our minds. Is that really so? Research is a process that includes thinking up 8_ projects to work on and 9_ ways of finding answers to questions.

Research is 10_ work but interesting, creative and sometimes 11_. The results of any research work can be presented in different forms but still there are some general 12_ there which a researcher must know.

1	A	expressive	B	important	C	urgent	D	vitality
2	A	led	B	caused	C	pursued	D	bring
3	A	objections	B	offers	C	promises	D	demands
4	A	learn	B	teach	C	instruct	D	to study
5	A	confusing	B	mixed	C	confused	D	embarrass
6	A	attends	B	conducts	C	accompanies	D	carries
7	A	paintings	B	imagination	C	images	D	models
8	A	interesting	B	interested	C	absorbed	D	obsessed
9	A	opening	B	inventing	C	designing	D	discovering
10	A	hard	B	heavy	C	weighty	D	hardly
11	A	disappointed	B	disillusioned	C	frustrating	D	sadly
12	A	exceptions	B	codes	C	status	D	rales

Exercise 4 Read the text to find the answers to the following questions:

a) What does your research deal with?

b) What are you engaged in at present?

Taking a Post-Graduate Course

1 Last year by the decision of the Scientific Council I took post-graduate courses to increase my knowledge in economics. I passed three entrance examinations – in History, English and the special subject. So now I am a first year post-graduate student of the Orenburg State University. I'm attached to the Statistics Department. In the course of my post-graduate studies I am to pass candidate examinations in philosophy, English and the special subject. So I attend courses of English and philosophy. I'm sure the knowledge of English will help me in my research.

2 My research deals with economics. The theme of the dissertation (thesis) is "Computer-Aided Tools for…". I was interested in the problem when a student so by now I have collected some valuable data for my thesis.

3 I work in close contact with my research adviser (superviser). He graduated from the Moscow State University 15 years ago and got his doctoral degree at the age of 40. He is the youngest Doctor of Sciences at our University. He has published a great number of research papers in journals not only in this country but also abroad. He often takes part in the work of scientific conferences and symposia. When I encounter difficulties in my work I always consult my research adviser.

4 At present I am engaged in collecting the necessary data. I hope it will be a success and I will be through with my work on time.

Exercise 5 Read passage 2 and answer the following questions: What is the theme of your dissertation?

Exercise 6 Read passage 3 and speak about your research adviser according to the following plan:

1) Doctor's degree; 2) Scientific publications; 3) Participation in the work of scientific conferences.

Exercise 7 Inform your colleague:

a) what candidate examinations you have already passed;

b) what the theme of your dissertation is;

c) how many scientific papers you have published;

d) if you are busy with making an experiment.

Exercise 8 Study the text below:

My research work

My name is Anna Sovitskaya I'm an economist in one of the Orenburg auditing firms. My special subject is accounting. I combine practical work with scientific research, so I'm a doctoral candidate (соискатель).

I'm doing research in auditing which is now widely accepted in all fields of economy. This branch of knowledge has been rapidly developing in the last two decades. The obtained results have already found wide application in various spheres of national economy.

I'm interested in that part of auditing which includes its internal quality control. I have been working at the problem for two years. I got interested in it when a student.

The theme of the dissertation is "Internal quality control of audit services". The subject of my thesis is the development of an effective internal quality control system for audit firm services.

I think this problem is very important nowadays as a major portion of public accounting practice is involved with auditing. In making decisions it is necessary for the investors, creditors and other interested parties to know whether the financial statements may be relied on. Hence there should be an internal control of auditing operations for insuring the fairness of presentation.

My work is both of theoretical and practical importance. It is based on the theory developed by my research adviser, professor S. Petrov. He is head of the department at the Orenburg State University. I always consult him when I encounter difficulties in my research. We often discuss the collected data. These data enable me to define more precisely the theoretical model of the audit internal quality system.

I have not completed the experimental part of my thesis yet, but I'm through with the theoretical part. For the moment I have 4 scientific papers published. One of them was published in the US journal.

I take part in various scientific conferences where I make reports on my subject and participate in scientific discussions and debates.

I'm planning to finish writing the dissertation by the end of the next year and prove it in the Scientific Council of the Orenburg State University. I hope to get a Ph. D. in Economics.

Exercise 9 Read the text again to find the answer to the following questions:

1 What is Anna?

2 What is her special subject?

3 What field of knowledge is she doing research in?

4 Has she been working at the problem long?

5 Is her work of practical or theoretical importance?
6 Who does she collaborate with?
7 When does she consult your scientific adviser?
8 Has she completed the experimental part of your dissertation?
9 How many scientific papers has she published?
10 Does she take part in the work of scientific conferences?
11 Where and when is she going to get Ph.D. degree?

Exercise 10 Read the text, translate and retell it:

Some Aspects of Research Work Organization: English – Speaking Countries

Science is not a licensed profession, and to be considered a scientist one need not be a Doctor of Philosophy. But a scientist without a Ph.D. (or a medical degree) is like a lay brother in a Cistercian monastery. Generally he has to labour in the fields while others sing in the choir. If he goes into academic life, he can hope to become a professor only at the kind of college or university where faculty members are given neither time nor facilities for research. A young scientist with a bachelor's or a master's degree will probably have to spend his time working on problems, or pieces of problems, that are assigned to him by other people and that are of more practical than scientific interest. Wherever he works, the prospects are slight that he will be given much autonomy and freedom. Having a Ph. D. or its equivalent – a medical degree plus post-graduate training in research – has become in fact, if not in law, a requirement for full citizen ship in the American scientific community.

Exercise 11 Read the text, translate and retell it:

Leading Research Centres

To be successful as a scientist, it is important not only to have a Ph. D., but to have earned it at the right place. From the standpoint of rightness, American universities may be divided into three groups. The first is made up of those institutions to which the term “leading” may appropriately be applied. They include Chicago, Cal Tech, the University of California at Berkeley, Columbia, Harvard, Illinois, M.I.T. (Massachusetts Institute of Technology), Michigan, Princeton, Stanford, Wisconsin, Yale, and perhaps two or three others. These are the universities whose professors get the biggest research grants, publish most scientific papers, serve on the most important government committees, win most of the scientific prizes, and are most likely to be acknowledged as leaders in their fields … Ranking just below these twelve are universities like Minnesota and Indiana and U.C.L.A. (University of California at Los Angelos), where scientists and scholars of international renown are also to be found, but in such dense clusters as at Harvard or Berkeley … This is not to say that first-rate scientists are to be found only at first-rate universities – or that are no second-rate people at Berkeley and M.I.T. But the brightest students, like the brightest professors, tend to be found at the leading universities.

Exercise 12 Read the text, translate and retell it:

Although possession of a Ph. D. is supposed to signify that a scientist has learned his trade as a researcher, it is now very common for young scientists to continue in a quasi-student status for a year or two after they get their doctorates.

Older scientists as a rule are very happy to take on postdoctoral students. The postdoc, as he is sometimes called, is like an advanced graduate student in that he does research under the general direction of an older man. But he usually needs much less direction of an older man and he can therefore be much more helpful to an experienced scientist who is eager to see his work pushed forward as rapidly as possible. Postdoctoral trainees can have a further advantage of serving a professor as a middleman in his dealing with his graduate students.

For young scientists themselves, a year or two of postdoctoral study and research has many attractions. For some it is a chance to make up for what they didn't learn in graduate school. For scientists whose graduate training has been good, the chief advantage of doing postdoctoral research is that it gives them a couple of years in which they can put all their effort into research. A postdoctoral fellowship can also be a relatively tranquil interlude between the pressures and intellectual restrictions of life as a graduate student, and the competition and distractions of life as an assistant professor. Many scientists go abroad, not because the training they get will necessarily be better than they would get in the United States, but because a postdoctoral fellowship gives them a chance to travel – often for the first time in their lives.

Exercise 13 Make a list of the most important points for a person to be qualified as a scientist in an English-speaking country.

Exercise 14 Read the experts from the newspaper article for information on the roles of scientists in American society. Use the information when discussing the questions that follow:

Research Universities Key to State’s Economic Recovery by Venky Narayahamuri America's research university system has long been the envy of the world. The strength and excellence of its infrastructure has contributed enormously to America's economic growth and improved quality of life.

Its basic research efforts have advanced our knowledge base which in turn has driven our technological progress over the last half century, and its educational efforts have produced a strong American work force. But the world as we have known it is undergoing major changes.

With the end of the Cold War has come a dynamic shift in emphasis from defense to civilian concerns. More and more the United States is competing in an expanding global marketplace. This changing environment is posing many new challenges and expectations for our institutions of higher education, including a great fiscal impact, and it has caused universities to come under heightened public scrutiny.

We must show society that we can produce broad-based graduates who are able to solve today's pressing national needs, among them environmental protection, better health care, alternate means of transportation, industrial productivity, and improved manufacturing processes.

Universities can accomplish this goal by developing a holistic approach to education through integrating education and research – the two are inseparable in my mind – by fostering more effective partnerships with industry and government agencies to better respond to strategic research opportunities, and by continuously emphasizing quality and excellence in everything we do.

Here is why America's research universities are its treasured institutions. Research universities attract the best and brightest faculty. Such faculties are highly dedicated individuals who innovate and lead frontier research efforts, who demonstrate excellence in teaching, and who show excellence in community service.

They teach our students, engaging them in discovery, development and application processes, and motivating them to aspire to greater achievements.

Research universities engage in creative multidisciplinary research projects, further increasing the range and number of opportunities undergraduate and graduate students have for supervised research.

But it is not only students enrolled at the university who benefit from exposure to first-rate research, working alongside world-class faculty. Research universities also simulate and fire the imaginations of those in the educational pipeline – America's K-12 students and their teachers.

As the deans of UCSB's College of Engineering, I am listening to government, industry and the public, and I am hearing that they want to see in new graduates – quality, excellence and teamwork ability. Their call to action has not gone us heard. We have undertaken here a major reevaluation of our curriculum and are implementing a new freshman year sequence that integrates oral and written communication, computing skills and engineering concepts.

We have initiated a new mechanical engineering design thrust, one that increases hands-on real-world experience by emphasizing synthesis and the fundamentals of design and manufacture. We also have started a new undergraduate research seminar series to further broaden student experience.

We already are an information society. The need for an increasingly technologically oriented work force for the 21st century, competent in computing, mathematics and information technology, certainly will not diminish. If we abandon the research university, which has provided much of America's knowledge base and education infrastructure, how can we possibly train future generations of workers? How will we solve tomorrow's problems? How will we develop tomorrow's needed technologies? We need research universities that are strong and vital more now than ever before.

Exercise 15 Discussion:

1 What are the points raised in the article?

2 What are the key factors in the relationships among universities, industry, and government in the USA and Belarus?

3 What points would you stress if you had to describe to an American student the relationships among universities, industry, and government in Belarus?

Exercise 16 Read the experts from an interview by Boris Saltykov with MN's correspondent on the problems of Russian fundamental science. Use the information when discussing the questions that follow:

Russian Scientific Potential To Be Fully Tapped Yet

As he arrived in Stockholm to receive a Nobel Prize, Academician Alexei Abrikosov, who has long been living in the United States, said: This is probably the last prestigious prize to be awarded to Russian scientists because domestic science today gets hardly any funding at all while the best brains have already fled abroad.

The other Russian Nobel Prize winner, Academician Vitaly Ginzburg, is of a different opinion: The country still has enough intellectual potential for scientific breakthroughs.

How long will it be before this potential runs out? And, is it only the financial crunch that is ruining Russian science? Boris Saltykov, president of the Russian House of International Science-and-Technology Cooperation association and, in 1991–96, RF science and technology policy minister, talks about these and other problems in an interview with MN's Tatyana Skorobogatko.

So, what is the outlook for Russians winning more Nobel Prizes in the foreseeable future? I don't know about prizes, but I believe that Russia's scientific potential is far from being exhausted. There are some scientific schools that are still up to the finest international research standards. Say, excellent results are being achieved in the field of thermonuclear energy and elementary particles physics. True, the number of such schools is shrinking: Their founders pass away while their talented students go to work in the West. Students of science theory know very well that the golden age of Soviet science was in the 1960s and early 1970s, when the country was awash with petrodollars. That was the time when new laboratories, research centers, and entire branches of science were emerging with young people coming to work there. A 25-year-old lab chief or a 30-year-old deputy director or even director was a perfectly normal thing then. Almost all ideas that are winning prizes today originated in those years.

The command economy is no more and the money is even scarcer, but the old principle of financing is still in place? Not only the principle of financing. The entire paternalistic command-andadminister structure of science is still alive. Say, the Academy still acts as a kind of fundamental science ministry. It manages vast state property and distributes enormous state resources between institutions under its jurisdiction.

But what the science infrastructure needs is not so much support as development. In other words, the lion's share of resources should be given to the best.

It is an open secret that the majority of the once densely populated research institute building today are half filled at best, while researchers go to work abroad. Russian scientists are in 40th position or thereabouts in the frequency of quotation in the world's leading science journals. Should we still take pride in our fundamental science?

Clearly, Russian fundamental science is hard put to develop within the bounds of the old structure, which does not fit into a new economic system. So why is the Academy not reforming itself?

The idea was aired in early 1990s. But academicians managed to persuade the political leadership at the time that reforming the Academy would be tantamount to destroying science, putting forward an interesting thesis: In Russia, two things are not subject to reform, the Church and the Academy of Sciences.

Domestic fundamental science has indeed developed mainly within the academic structure. Mainly, yes (although the most successful research programs in nuclear physics, for example, have been conducted at institutes affiliated with the Ministry of Atomic Energy). But times have changed. Today, sad as this may be, our science has been "conquered" by the West without a single shot being fired: Tens of thousands of Russian scientists are successfully working abroad. One of them quipped: "They talked about the need for global expansion of Russian science, didn't they? So it has now come about".

Should the brain drain be lamented in the first place? If fundamental science is beyond the state's means, perhaps it could develop elsewhere. It should be lamented, although fundamental science, unlike applied science, indeed has no commercial value. The results are published openly, immediately becoming the property of the whole mankind, even when a theoretical discovery could in the future produce tangible practical benefits. Take, for example, the human genome deciphering project: It has given a powerful impetus to a fairly "commercial" sector – medicine.

Has Russia really lost an opportunity to tap its results because it did not invest in this international project? It has not, in theory. Yet I recently talked to a biologist, a Moscow State University professor, who complained that Russia had not taken part in the project, and many specialists had gone abroad. So now we do not have a single genome textbook in Russian – how are we supposed to teach students?

As a result, our undergraduate training establishments, including medical institutes, may fail to ensure effective training of specialists capable of developing genetic technology on a mass scale.

Incidentally, it is not only in scientific research organization but also in formulating scientific research priorities that Russia is going its own unique way. It does not consult the taxpayer about the choice of priorities. Herein lies in fact a distinguishing feature of the paternalistic command system: The state knows better what the country and its citizens need. Elsewhere in the world, priority in the past few decades has been given to life science, designed to preserve human health and extend the human life span. For some reason, Russia continues to invest the bulk of resources in physics and earth sciences. When the Soviet Union was surrounded by enemies, the public agreed that building an atomic bomb was of paramount importance. What kind of science is society ready to pay for today? Say, U.S. Congress allocated the National Health Institute (a network of scientific organizations conducting research projects in biology, medicine, etc.) even more money than it had asked for.

True, it should be understood that gaining knowledge is far from the only function of fundamental science. Other functions – innovative, expert, social, and cultural – are just as important for society. The education function is one of the most important of these. It is being successfully performed in the United State where fundamental science is concentrated mainly at universities. There is a basic difference between American universities and ours: In America, they are not so much training establishments as

powerful scientific and educational centers. Economically, they are an optimal structure – what with the dual use of the equipment and research personnel (both for research projects and for training new scientists by using the latest scientific achievements). I think that reform of our fundamental science should move in this direction.

Of course plenty of problems arise here. Say, research universities should not answer to the Ministry of Education (in the West, their activity is directed by boards of guardians). Such centers should be headed up not simply by scientists but scientists/managers: There are very few such people among our scientific leading lights. There are many other problems. Yet if there is a policy decision to conduct this "velvet revolution", organizational problems could eventually be resolved.

So we should stop saying that fundamental science is a matter of national prestige? It is indeed a matter of national prestige – a kind of a state emblem. Surely we cannot reduce everything to practical gain. Say, what benefit does the country derive from its great composers? None at first glance. But this is a matter of national pride.

We should likewise we proud of our great scientists. It is important that they continue to appear here in Russia.

Moscow News #1, 2004

Fact box

Nobel Prizes for Russian Scientists

Physics: Pavel Cherenkov, Ilya Frank, Igor Tamm (1958, discovery and interpretation of the Cherenkov effect);

Lev Landau (1962, studies of liquid helium);

Nikolai Basov, Alexander Prokhorov (1964, quantum generators/lasers);

Pyotr Kapitsa (1978, physics of superlow temperatures);

Jaures Alferov (2000, semiconductors, optical electronics);

Vitaly Ginzburg, Alexei Abrikosov (2003, superconductivity and superfluidity).

Chemistry: Nikolai Semenov (1956, chemical "chain" reaction mechanisms).

Physiology and medicine: Ivan Pavlov (1904, physiology of digestion);

Ilya Mechnikov (1908, immunity).

Economics: Leonid Kantorovich (1975, mathematical models in economics).

Exercise 17 Put ten questions to the text above and ask your colleague to answer them using the information from the text.

Exercise 18 Read the text and find the answers to the questions that follow it:

How British Science Is Organized

John B.S. Haldane

The British Association for the Advancement of Science was founded in 1831, and at that time almost every serious scientist in Britain belonged to it. There were so few of them that most of the year's work in a given branch of science could be discussed in

a few days. In fact it merited title of “Parliament of Science” which is still bestowed on it by some newspapers.

Since then the situation has completely changed. At present there are a number of societies, for example the Royal Astronomical Society, the Chemical Society, the Genetical Society, the Geological Society and the Physiological Society which are composed of scientists only. Finally there is the Royal Society of London for Improving Natural Knowledge. This has 384 scientific fellows, 49 foreign members, and 15 British fellows. When it was founded nearly 300 years ago, it included every scientist in England, and many others, such as Samuel Pepys, who were interested in science. But now it only includes a small fraction of scientists, and its discussions are less lively than those of the societies concerned with individual sciences. On the other hand, the British Association is concerned with matters other than science. It has sections devoted to psychology, which is still only partially scientific, and to education and economics, which in this country at any rate are hardly so at all. So it has fallen away from its former scientific spirit to a certain extent.

But except for the Royal Society, the scientific societies have not the money to subsidize research. This is done by universities, the government, industrial firms, and endowed bodies. There is no organization of research on a national scale. Some of the government and industrial research is secret, and therefore of no value to science. For science means knowledge.

The British Association is able to spare a few hundred pounds yearly for grants in aid of research. But its main function now is discussion. New results are generally announced at meetings of smaller societies, and the public hears very little of them.

Both in Russia and in Scandinavia the press has far better scientific news than in Britain.

If science is to advance in this country as it should, we need more democracy in the laboratories, also more democratic control of expenditure on research. This will only be possible if the people are educated in science, and they are at present deliberately kept in the dark. For a knowledge of science leads to a realization of the huge amount of knowledge which could be applied to the public benefit if industry, agriculture and transport were organized for use and not for profit.

Exercise 19 Answer the questions:

1 Who belonged to the British Association for the Advancement of Science in the 19th century?

2 Were there many scientists there at that time?

3 It merited title of “Parliament of Science”, didn’t it?

4 Has the situation changed since then?

5 Whom does the Royal Society of London for Improving Natural knowledge include?

6 What issues is the British Association concerned with?

7 It has fallen away from its former scientific spirit, hasn’t it?

8 Do the scientific societies have the money to subsidize research?

9 There is no organization of research on a national scale, is there?

10 Does the public hear much of the research results?

11 What is necessary for the science to advance in Britain?

Exercise 20 Give some facts from the text to prove the following:
The British Association is concerned with matters other than science.

Exercise 21 Do you agree that "Science means knowledge"? Speak on the issue.

Exercise 22 Read the text for the information on a scientific institution in England. Use the information when doing the assignments that follow:

Imperial College, London

The Imperial College of Science and Technology is one of the oldest and most important scientific institutes in England. It now forms part of the University of London, and fulfils the dual purpose of teaching students and fostering research in science and technology.

Imperial College began as the Royal College of Science in the middle of the nineteenth century, when it was realized that teaching and pursuing science and its applications was necessary to fully carry out the industrial revolution and keep Britain in the forepost of technological advance. Many famous scientists were associated with the early days of the College, for example Huxley and Wells. Prince

Albert, the royal patron, also closely followed scientific work at the College. With the addition of the City and Guilds Institute and the Royal School of Mines, Imperial College acquired large engineering facilities in addition to those for pure scientific research.

Today the main departments are: Physics (of which Professor Blockett is well known), Civil Engineering, Mechanical Engineering, Electrical Engineering, Aeronautics, Mining Technology, Chemistry and Mathematics. A large new department is the Biochemical Department, headed by Professor Chain.

Imperial College is fortunate in having several new building with many excellent laboratories, and more are being built. A Computer Section develops the facilities of computers for the use at all departments. The College also has facilities outside London in a biological field station and a mining research station.

At the present time about 2000 students are studying at Imperial College for their first degree. There are also about 1000 research students, working for higher degrees and participating in the research work of the College. A large proportion of them are overseas students from many different countries. There is much excellent research work undertaken at Imperial College in a wide range of subjects. Now research groups include one working on traffic problems, an operational research group, and a history of science department.

Imperial College is still growing in size and numbers, and as an almost independent institution it rivals many other colleges of London University put together. It is possible that it will be associated with other institutes nearly, the Royal Schools of art and Music, to develop into a separate University. In this way it is hoped to continue to train specialized scientists and engineers in a more varied cultural atmosphere than a university is supposed to embody.

Vocabulary:
research student - аспирант, соискатель;
overseas students - иностранные студенты.

Exercise 23 Give Russian equivalents to the sentences below paying special attention to the parts in italics:

1 The Imperial College of Science and Technology *forms part* of the University of London.

2 It fulfils the dual purposes of teaching students and *fostering research* in science and technology.

3 It was necessary to fully carry out the industrial revolution and keep Britain *in the forepost of technological advance*.

4 Imperial Colledge acquired large engineering facilities in addition to those for *pure scientific research.*

5 A Computer Section *develops the facilities* of the College's computers for the use of all departments.

6 There are about 1000 research students, working for higher degrees and *participating in the research work* of the college.

7 Much excellent *research work is undertaken* at Imperial College in a wide range of subjects.

8 Imperial College is still growing *in size and numbers*.

9 Imperial College rivals many other colleges of London University *put together*.

10 In this way it is hoped to continue *to train specialized scientists* and engineers.

Exercise 24 Find out all you can about the Imperial College by asking questions. Follow the model. Make up a short talk:

Model: – Is the Imperial College of Science and Technology an English scientific institution?

– I think (As far as I know) the Imperial College is the oldest and most important scientific institute in England.

1 What is the dual purpose of the Imperial College?
2 What famous scientist were associated with the Imperial College?
3 What are the main departments of the Imperial College at present?
4 How many students and research students are studying at the Imperial College at the present time?
5 What new research groups have been formed at the Imperial College?
6 What is the main goal (task, purpose) of the I.C.?

Exercise 25 Answer the following questions:

1 What kind of institution is the Imperial College of Science and Technology?
2 What are the purposes of the College?
3 In what field does it foster research?
4 When did the College begin as the Royal College of Science?
5 Why was teaching and pursuing science so necessary at that time?

6 What helped to keep Britain in the forepost of technological advance?
7 Who was associated with the early days of the College?
8 What facilities did the College acquire?
9 What are the main departments of Imperial College?
10 Are there any new buildings being built for the College?
11 Is the College related to the University of London?
12 What was realized in the middle of the nineteenth century?
13 What historical events of great importance took place in the middle of the nineteenth century?
14 What department is run by Professor Chain?
15 What can you tell us about your University?
16 What is your opinion of the research carried on at your University?
17 What do you think is the main purpose of this research?
18 What are the facilities for research at your University?
19 Has it any facilities outside the town?
20 How many research students are there at your department?
21 Is your University growing in size and numbers?
22 Are there any new research units (teams) at your University and what are they working on?
23 What well-known scientists work at your University?

Exercise 26 Translate into English:

1 Империал-колледж – одно из старейших и наиболее важных научных заведений Англии. 2 Колледж представляет собой часть Лондонского университета. 3 Колледж служит двум целям: обучению студентов и проведению большой технической работы. 4 Империал-колледж возник в середине XIX столетия. 5 Очень скоро этот колледж оказался самым передовым учебным заведением. 6 С первыми годами деятельности колледжа связаны имена многих известных ученых. 7 В настоящее время создано несколько больших новых отделений. 8 Во главе одного их таких отделений стоит профессор П. 9 Кроме того, колледж имеет несколько филиалов за пределами Лондона. 10 В колледже сейчас ведутся многочисленные исследовательские работы в широком масштабе. 11 Размеры колледжа и штат преподавателей и сотрудников продолжают расти с каждым годом.

Exercise 27 Ask your fellow-student the following questions:

1 Who are you?
2 Where did you study?
3 When did you graduate from the University?
4 How long have were studying at the University?
5 Where do you work?
6 How long have you been working there?
7 What is your field (occupation)?
8 What department do you belong to?
9 In what field do you carry on your research?

Exercise 28 Talking to your fellow student find out the details about his/her University (department). The following questions may help you:

1 Where is your University situated?
2 Is it far from the place you live in?
3 How long does it take you to get there?
4 Does your University occupy one building or several?
5 When was the University founded?
6 Who was the founder of it?
7 After whom is the University named?
8 Who is the head (president) of the University?
9 Is the staff of your University large?
10 Is there a Scientific Council at your University?
11 Who is the Scientific Council?
12 Does the University hold any conferences, symposia or seminars?
13 Are there any distinguished scientists at your University?
14 What kind of research does the University do?
15 Is the scope of research wide?
16 How many departments are there at your University?
17 Who is head of your department?
18 What kind of equipment do you have at your department?
19 Is it up-to-date?

Grammar

Exercise 29 Revise «Prepositions. Numerals» and do the following tasks:

a) *Insert prepositions:*

1 Imperial College is fostering research … science and technology.
2 It was founded as the Royal College … the middle … the nineteenth century.
3 The aim … its foundation was to keep Britain … forepost … technological advance.
4 Many famous scientists were associated … the College.
5 There are large engineering facilities … addition … those … pure scientific research.
6 One … the departments is headed … Professor Chain.
7 The College is fortunate … having several new buildings … many laboratories.
8 The College has facilities … London … a biological field station.
9 … the present time many research students are working … higher degree … Imperial College.
10 Much research work is undertaken … Imperial College … a wide range … subjects.
11 The College is growing … size and numbers.
12 Very soon it will develop … a separate University.

b) *Insert prepositions where necessary:*

1 The number . . . those attending . . . the Fifth Biochemical Congress was about 5500. 2 The opening ceremony closed . . . a lecture followed . . . a concert given . . . the Moscow Symphony Orchestra. 3 The lecture . . . the structure . . . subcellular particles was given . . . Professor Green. It attracted . . . the attention . . . all those interested . . . different aspects . . . biochemistry. 4 . . . the end . . . each session an hour was set aside . . . discussion. 5 Language difficulties were reduced . . . a minimum as the arrangements . . . simultaneous translations were excellent. The majority . . . foreign participants could hear speeches and lectures . . . their native languages or . . . the language they knew better. 6 A number . . . interesting tours was organized . . . Intourist. 7 There was arranged an exhibition . . . books dealing . . . different aspects . . . biochemistry. 8 The congress closed . . . a series . . receptions given . . . the participants . . . Academician A. I. Oparin. 9 I attended . . . a very interesting conference held . . . the presidency . . . an outstanding scientist.

Тема 6 Conferences and Symposia

Exercise 1 Find the synonyms to the following words:

a) resolution, communication, speech, delegate, deputy, print, adopt, present, report, registration, discussion, transmission, motivation;

b) representative, take over, motivation, substitute, conversation, communication, spoken language, introduce, type, relate, transfer, recording, reason.

Exercise 2 Match the given words with their definitions. Translate the words in italics:

1) resolution;
2) communication;
3) speech;
4) delegate;
5) deputy;
6) print;
7) adopt;
8) present;
9) report;
10) registration;
11) discussion;
12) transmission;
13) motivation;

a) a person appointed or authorized to act as a substitute for another or others;

b) to show or exhibit;

c) to submit or relate the results of considerations concerning;

d) the imparting or interchange of thoughts, opinions, or information by speech, writing, or signs;

e) the psychological feature that arouses an organism to action toward a desired goal; the reason for the action; that which gives purpose and direction to behavior;

f) conveyance from one place to another;

g) the faculty or power of speaking; oral communication; ability to express one's thoughts and emotions by speech sounds and gesture;

h) a formal expression of opinion or intention made, usually after voting, by a formal organization, a legislature, a club, or other group;

i) to produce (a text, picture, etc.) by applying inked types, plates, blocks, or the like, to paper or other material either by direct pressure or indirectly by offsetting an image onto an intermediate roller;

j) consideration of a subject by a group;

k) to choose or take as one's own; make one's own by selection or assent;

l) the act of registering;

m) a person designated to act for or represent another or others.

Exercise 3 Underline the correct word A, B, C, or D to fill in the gaps:

Tomorrow's scientific fiction has become today's new technology – a daily reality for global companies who recognize the importance of regular 1_ between groups of people in different locations around the world.

Essentially the videoconference room 2_ a usual conference room. 3_ sit along one side of a table facing their colleagues on screen on the other side. They can see, hear and talk to each other simultaneously and can 4_ slides of diagrams, even pieces of equipment. The 5_ is relatively simple. A device called 6_ takes the picture, digitalizes it for transmission over a special network and reforms the picture at the other end.

The problem today is to manufacture codec to the new international standard and to improve picture quality through faster 7_ speeds. Research and development is also focusing on mobile 8_ with broad cast quality pictures which enable to have instant communication with colleagues around the world.

There is no doubt about the effectiveness of videoconferencing, as the videoconference eliminates 9_ lost through travel.

	A	resolution	B	communication	C	speech	D	address
	A	attends	B	remembers	C	motivates	D	resembles
	A	delegates	B	deputies	C	publishers	D	editors
	A	print	B	adopt	C	present	D	report
	A	technology	B	subject	C	viewpoint	D	opinion
	A	projector	B	loudspeaker	C	microphone	D	videocodec
	A	registration	B	discussion	C	transmission	D	motivation
	A	videoconferencing	B	assembly	C	colloquium	D	congress
	A	time-limit	B	time-table	C	working time	D	minutes

Exercise 4 Read the text:

Academic conference

An academic conference is a conference for researchers (not always academics) to present and discuss their work. Together with academic or scientific journals, conferences provide an important channel for exchange of information between researchers.

Generally, work is presented in the form of short, concise presentations lasting about 10 to 30 minutes, usually including discussion. The work may be bundled in written form as academic papers and published as the conference proceedings. Often there are one or more keynote speakers (usually scholars of some standing), presenting a lecture that lasts an hour or so, and which is likely to be advertised before the conference. Panel discussions, roundtables on various issues, workshops may be part of the conference, the latter ones particularly if the conference is related to the performing arts.

Prospective presenters are usually asked to submit a short abstract of their presentation, which will be reviewed before the presentation is accepted for the meeting. Some disciplines require presenters to submit a paper of about 12-15 pages, which is peer reviewed by members of the program committee or referees chosen by them.

In some disciplines, such as English and other languages, it is common for presenters to read from a prepared script. In other disciplines such as the sciences, presenters usually base their talk around a visual presentation that displays key figures and research results.

A large meeting will usually be called a conference, while a smaller is termed a workshop. They might be single track or multiple track, where the former has only one session at a time, while a multiple track meeting has several parallel sessions with speakers in separate rooms speaking at the same time.

Depending on the theme of the conference, social or entertainment activities may also be offered; if it's a large enough conference, academic publishing houses may set up displays offering books at a discount. At larger conferences, business meetings for learned societies or interest groups might also take place.

Academic conferences fall into three categories:

- the themed conference, small conferences organized around a particular topic;
- the general conference, a conference with a wider focus, with sessions on a wide variety of topics. These conferences are often organized by regional, national, or international learned societies, and held annually or on some other regular basis;
- the professional conference, large conferences not limited to academics, but with academically-related issues.

Conferences are usually organized either by a scientific society or by a group of researchers with a common interest. Larger meetings may be handled on behalf of the scientific society by a Professional Conference Organizer or PCO.

Exercise 5 Complete the following sentences with information from the text:

1 Conferences provide_____.

2 The work may be bundled_____.

3 _____may be part of the conference.
4 _____to submit a short abstract of their presentation.
5 In some disciplines it is common_____.
6 _____while a smaller is termed a workshop.
7 Academic conferences fall_____.
8 _____by a group of researchers with a common interest.

Exercise 6 Answer the following questions:

1 Who is an academic conference for?
2 What do academic conferences provide?
3 How long does usually a presentation last?
4 Often there are ten or more keynote speakers (usually scholars of some standing), presenting a lecture, aren't there?
5 Do members of the program committee review the reports?
6 What is a workshop?
7 What does the offer of social or entertainment activities depend on?
8 What kinds of academic conferences do you know?

Exercise 7 Retell the text «*Academic conference*».

Exercise 8 Read the text to find out the information about a scientific conference and its participants. Translate it into English using the words in brackets:

Ежегодно в мире организуются сотни разнообразных международных научных встреч (scientific meetings). Большинство из них проходит в форме конференций (conferences), симпозиумов (symposia, ед.ч. symposium) коллоквиумов (colloquia, ед.ч. colloquium) и семинаров (seminars/workshops).

Регулярно собираются сессии (sessions) и генеральные ассамблеи (general assemblies, ед.ч. assembly) научных обществ и союзов. Проводят свои совещания (meetings) члены различных международных комитетов и комиссий.

Периодически международные ассоциации организуют представительные конгрессы (congresses). Популярны среди ученых деловые по характеру и образовательные по своей сути школы-семинары (schools/short courses/study days /institutes/teach-ins).

Познакомимся с основными реалиями научной конференции, включающие типичные компоненты, присущие данной форме научной коммуникации.

Подготовка научной конференции начинается, как правило, с определения ее темы (theme of the conference/conference theme): 15th Pacific Science Congress.

Theme: Conservation, development and utilization of the resources of the Pacific.

Обычно формулируется основная (central/major theme), или официальная, тема (official theme) конференции, которая может допускать широкий выбор вопросов для обсуждения (topics for discussion): "To provide a focus for the meeting, without in any way restricting the topics for discussion, the ISA (International Sociological Association) Executive Committee chose an official theme: Sociological Theory and Social Practice".

Иногда задается общая тема конференции (general theme), которая разбивается на несколько подтем (subthemes): “The general theme of the Congress: “Mankind’s Future in the Pacific”. This will be developed through seven related subthemes: “Energy and Mankind”, “Nutrition and the Future of Mankind”, “Options for Man’s Future: A Biological View”, etc.

Устроителями научной конференции, обеспечивающим, в частности, ее финансовую поддержку (sponsors of the conference/conference sponsors), являются, как правило, несколько организаций (sponsoring organizations): “The Conference is sponsored by the International Union of Pure and Applied Physics, the American Physical Society and the University of Oregon”.

Многочисленные вопросы подготовки и проведения конференции, а также обслуживания ее участников находятся в ведении организационного комитета (organizing committee). Нередко для разработки научной программы конференции, приглашения и отбора ее участников формируется программный комитет (program committee). Встречаются и другие разновидности комитетов: местный организационный (local organizing/local arrangements committee), национальный организационный (national organizing committee), дамский (ladies’ committee), ответственный за программу для жен участников и членов их семей, и т.д.

Каждый из комитетов возглавляется председателем (chairman of the committee/committee chairman). Один из организаторов конференции исполняет обязанности ее руководителя в целом (general chairman). Вся документация конференции находится в ведении ее секретаря (organizing secretary / secretary of the conference / conference secretary). Ключевые позиции на конгрессе занимают президент (president of the congress / congress president) и генеральный секретарь (secretary-general).

Когда принципиальные вопросы, связанные с организацией конференции, решены, и возможность ее проведения не вызывает сомнений, в соответствующих научных изданиях появляется информация о конференции в виде приглашения на присылку материалов докладов (call for papers). В этих публикациях указываются, в частности, сроки представления названия (title) и кратких тезисов (short abstracts) предполагаемого сообщения: “Titles and short abstracts should be submitted no later than January 31, 2005”. В них также даются сведения о размерах тезисов и правилах их оформления: «A 300-word abstract, typed double-spaced (for a 15-minute presentation) should be submitted by April 30, 2005». Далее могут следовать заверения в том, что все тезисы будут рассмотрены и каждый автор будет своевременно информирован о решении организаторов конференции: «All abstracts will be acknowledged. You will be informed by August 31, 2005 whether your abstract has been accepted».

В ряде случаев необходимо представлять подробные тезисы (extended abstract) или два вида материалов: тезисы и автореферат выступления (summary of the presentation): “Each author will be expected to submit the following material: a 50-word abstract of the paper, a summary of the presentation (up to four pages)”.

Принятые тезисы, как правило, оформляются в виде сборника (volume of abstracts/abstracts volume), который распространяется перед началом

конференции. В настоящее время все чаще практикуется ознакомление участников с полными текстами докладов, отобранных для представления на конференции. В связи с этим предварительно публикуются материалы докладов в научных изданиях и даже выпускаются отдельные сборники докладов. В этом случае в информационном сообщении указывается срок представления рукописи доклада (manuscript of the paper): “In case your abstract is accepted you will be required to submit a final manuscript of your paper by December 31, 2005”.

О научной конференции можно также узнать из информационных писем или циркуляров (announcements/circulars), рассылаемых заинтересованным научным учреждениям и отдельным ученым. Как правило, первое такое письмо (first announcement/circular) является одновременно и приглашением для участия в конференции: «The International Federation for Information Processing (IFIP) cordially invites you to the World Conference on Computers in Education to be held in Switzerland in July 2005».

Обычно в этом циркуляре имеется специальная заявочная форма (application/registration form), которая после заполнения отправляется по указанному адресу:

«Please complete this form and send it to the Congress Secretary for further information.

Name: ……

Professional Title: …….

Address: ……

Country …….

I hope to register for the World Conference on Computers in Education.

I intend to submit an abstract on the following topic

……

I will be accompanied by my spouse».

Ученые, откликнувшиеся на приглашение, попадают в список рассылки (mailing list) и соответственно обеспечиваются всеми информационными материалами по мере их публикации. Не включенные в список должны обращаться непосредственно в организационный комитет конференции. Об этом они могут узнать из объявления в научном журнале: «Further information will be sent only to those who have accepted the invitation. Those who are not included on the mailing list should contact the Organizing Committee».

Основанием для участия в конференции может быть и личное приглашение, например, организатора (convener/organizer) секции конгресса: “I extend to you a cordial personal invitation to participate in the sessions of this Section and to join the Congress Symposia and other Section meetings”.

В ряде случаев решающим подтверждением участия в конференции помимо выражения принципиального согласия и отправки соответствующих документов и научных материалов является внесение регистрационного взноса (registration fee). Иногда важно внести этот взнос как можно раньше, ибо число участников конференции ограничено и их регистрация проводится в хронологическом порядке (first-come basis registration): “Participation will be restricted to about 75 registrants in order to encourage audience interaction. Registration will be open on a

first-come basis and is scheduled to be closed on or before I May 2005 depending on the response".

Внесение регистрационного взноса дает участникам право воспользоваться рядом дополнительных услуг, например, получить экземпляр тезисов или докладов, стать обладателем билета на прием или выставку и т.д. На что именно расходуется данный взнос, можно узнать из информационного сообщения: «Registration fee includes: participation in the Conference, a copy of the Proceedings and entrance to the Exhibition».

Обычно в информационном сообщении указываются рабочие языки (working languages) конференции: «Papers may be delivered in English, French or German, preferably English».

В бюро регистрации (registration desk) участники конференции получают специальный комплект печатных материалов (registration kit/package/file), в который обычно входит сборник тезисов, программа конференции (conference program), путеводитель (guide/guidebook) или карта-схема городских улиц (street-map), различные памятки (leaflets/pamphlets), содержащие полезную для участников информацию.

Основные сведения о конференции обычно содержатся в буклете-программе (program booklet). Оперативная информация размещается на досках объявлений (notice boards) и демонстрационных щитах (bulletin boards). На представительских научных форумах выпускаются бюллетени новостей (news bulletins). Об их содержании и периодичности выхода можно узнать из программы конференции: "News Bulletins will be issued as required. Watch for them at the Registration desks. They will contain late program changes and special announcements of interest to the delegates".

К услугам всех прибывших на конференцию справочное бюро (information desk), где можно получить исчерпывающую консультацию по разным вопросам, связанным с обслуживанием участников и проведением ими свободного времени. На это обращает внимание следующее объявление: «The Information Desk consults the attendees for all general information including: entertainment, dining out, sightseeing, transportation, Internet and (photocopier) facilities».

В здании, где проходит конференция, обычно работает машинописное бюро (typing pool), почтовое отделение (post office), транспортное агентство (travel agency). К услугам участников различные точки питания (cafeterias/snack bars/refreshment areas). Их информируют о том, где они могут вкусно и относительно недорого поесть: «Meals will be available at the University Cafeteria. Excellent meals in good restaurants may be obtained at reasonable prices».

Как правило, в качестве места проведения конференции (conference premises/sits) выбирается специально предназначенное для этого здание (conference/congress/convention centre), отель (hotel) или территория университета (university campus). Конференция на базе университета (university conference), естественно, дешевле и для организаторов, и для участников в смысле их размещения (accommodation/housing): "Accommodation is available at the university campus in inexpensive student rooms".

В распоряжение участников предоставляются лекционные залы (lecture halls), комнаты для заседаний (meeting rooms), оборудуются специальные помещения – холлы (lounges) для неофициального общения.

На научных конференциях широко используется современное звукоусилительное (public address system) и аудиовизуальное оборудование (audiovisual equipment): слайдпроекторы (slide projectors), видеомагнитофоны (videorecorders), power point системы. При демонстрации экспериментов в лабораторных условиях эффективно работает система замкнутого телевидения (closed circuit television).

Для участников научной конференции обычно разрабатываются две программы: научная (scientific/technical program) и культурная (social program).

Начинается конференция специальным заседанием (ceremonial session/opening ceremony). Открывается конференция, как правило, приветственной речью (welcome address) одного из руководителей конференции. Нередко открытие конференции проходит в деловой обстановке. В этом случае председательствующий на заседании ограничивается вступительным словом (introductory/opening remarks).

На пленарных заседаниях (plenary sessions) выступающие (speakers) представляют соответственно пленарные доклады (plenary addresses/lectures/talks/papers) и в ряде случаев основные доклады, определяющие ход всей конференции (keynote addresses/papers). Основной докладчик (keynote speaker) является, как правило, известным ученым, признанным авторитетом в своей области: «The keynote speaker will be Professor Brown, a distinguished economist from the University of London, who will talk about the past, present and future of economics».

Большой аудитории обычно адресуются обзорные (overview/review papers) и отчетные доклады (reports).

Нередко организационный комитет представляет участникам возможность провести незапланированное заседание (impromptu meeting), если те высказывают такое пожелание. Об этом можно узнать, например, из такого объявления: «Groups wishing to hold impromptu meetings in the evening after the regular program may ask for room assignment from the Mexican Local Organizing Committee».

В основном все представленные на конференцию научные доклады (papers/scientific contributions) можно разделить на доклады по приглашению (invited/solicited papers) и доклады, заявленные по инициативе самих участников (contributed/free/uninvited papers). Последние, как правило, составляют программу параллельно идущих секционных заседаний (concurrent/parallel sessions), часто называемых симпозиумами (symposia): “The meeting contains 90 invited papers and 230 contributed papers organized into 24 symposia”.

Отдельные доклады могут носить образовательный (обучающий) характер (tutorial papers): “The program will consist of invited and contributed papers, as well as workshop sessions. Some of invited papers will be tutorial in nature”.

Возможен и такой вариант, когда предложенные темы обсуждаются до конференции в рабочих группах (working parties/groups), а затем представители

этих групп (rapporteurs of working parties/groups) делают основные доклады (lead papers) на пленарных заседаниях: «The lead papers presented in plenary sessions represented experience in several different countries as well as in international institutions».

При ограничении во времени, особенно при отсутствии параллельных заседаний, один докладчик (repporteur of grouped papers) представляет ряд докладов в сгруппированном виде.

Иногда проводятся совместные заседания (joint meeting) отдельных секций или даже конференций, чтобы их участники, представители разных областей науки, могли обсудить общие проблемы.

На конференциях нередко устраиваются специальные лекции (special lectures) для участников, а также публичные лекции (public lectures) для всех желающих, с которыми выступают известные ученые или общественные деятели.

Важным элементом любой научной конференции является обсуждение докладов, или дискуссия (discussion), которой обычно руководит председатель заседания (chairman of the session/session chairman).

Используется и такая форма, как обмен мнениями с участием ведущих специалистов в присутствии широкой аудитории (panel discussion).

Выступающие на этой встрече (panelists/members of the panel) освещают темы, предлагаемые ее ведущим (chairman of the panel discussion), и отвечают на вопросы коллег.

Проводятся на научных конференциях и обсуждения за «круглым столом» (round table discussions/round tables).

В последние время стали пользоваться успехом стендовые заседания (poster sessions), во время которых авторы-демонстраторы (presenters) представляют так называемые стендовые сообщения (posters/poster papers/poster presentations).

Обычно параллельно с проведением конференции организуются тематические выставки (exhibitions/exhibits/displays), в том числе имеющие коммерческий интерес (commercial exhibitions): “There will be a commercial exhibition of ultrasound equipment with the conference. Companies interested in exhibiting should contact the Conference organizer”; устраиваются демонстрации оборудования, приборов и материалов (shows/demonstrations): “The Physics show, where manufacturers present the latest models of research instruments, apparatus and materials, will be organized by the American Institute of Physics”.

Гости конференции имеют возможность принять участие в разного рода профессиональных экскурсиях (professional/technical excursions), в том числе полевых экскурсиях (field excursions/trips).

Успех научной конференции во многом определяется и тем, как подготовлена культурная программа и составляющие ее разнообразные мероприятия (social events), ибо именно в свободное время между участниками устанавливаются контакты, столь необходимые для плодотворного научного общения.

Гости конференции посещают местные музеи (museums), картинные галереи (art galleries), театры (theatres) и концертные залы (concert halls).

Exercise 9 Read and translate the text:

Symposium as a social activity in antiquity

The Greek symposium was a key Hellenic social institution, one that was also adopted by the Etruscans. It was a forum for men to debate, plot, boast, or simply to party with others. They were frequently held to celebrate the introduction of youths into aristocratic society, much like debutante balls today. Symposia were also held by aristocrats to celebrate other special occasions, such as victories in athletic and poetic contests.

Symposia were usually held in the men's quarters of the household. Singly or in pairs, the men would recline on couches arrayed against the three walls of the room away from the door. Free boys who participated did not recline but sat. Food was served, together with wine. The latter, usually mixed with water in varying proportions, was drawn from the krater, a large jar designed to be carried by two men, and served by nude servant boys from pitchers. Entertainment was provided, and depending on the occasion could include games, songs, flute-girls, slaves performing various acts, and hired entertainments. A symposium would be overseen by a symposiarch who would decide how strong or diluted the wine for the evening would be, depending on whether serious discussions or merely sensual indulgence were in the offing. Certain formalities were observed, most important among which were the libations by means of which the gods were propitiated.

In keeping with Greek notions of self-restraint and propriety, the symposiarch would prevent matters from getting out of hand. The playwright Euboulos, in a surviving fragment of a lost play has the god Dionysos describe proper and improper drinking:

For sensible men I prepare only three kraters: one for health (which they drink first), the second for love and pleasure, and the third for sleep. After the third one is drained, wise men go home. The fourth krater is not mine any more – it belongs to bad behaviour; the fifth is for shouting; the sixth is for rudeness and insults; the seventh is for fights; the eighth is for breaking the furniture; the ninth is for depression; the tenth is for madness and unconsciousness.

One of the more popular games at symposia was kottabos, in which drinkers swished the dregs of their wine in their kylixes (platter-like stemmed drinking vessels) and flung them at a target. Another feature of the symposia were skolia, drinking songs of a patriotic or bawdy nature, which were also performed in a competitive manner with one symposiast reciting the first part of a song and another expected to finish it.

Symposiasts could also compete in rhetorical contests, for which reason the term symposium has come to refer to any event where multiple speeches are made.

As with many other Greek customs, the framework of the symposium was adopted by the Romans under the name of comissatio. These revels also involved the drinking of assigned quantities of wine, and the oversight of a master of the ceremonies appointed for the occasion from among the guests.

Exercise 10 Retell the text «Symposium as a social activity in antiquity».

Exercise 11 Tell your fellow-students about the conferences you've attended using the words and word expressions from the text above. Use the following hints:

1 Was it a scientific meeting / a conference / a symposium / a colloquium / a seminar/workshop?

2 Have you ever been to sessions / general assemblies / meetings?

3 What congresses / schools /short courses /study days / institutes / teach-ins have you been to?

4 What was the theme of the conference/conference theme you last attended?

5 What topics for discussion were there?

6 Was there the general theme and several subthemes?

7 Who were the sponsors of the conference/conference sponsors?

8 Were there several sponsoring organizations?

9 Who did the organizing committee consist of?

10 Who was chairman of the committee/committee chairman?

11Who was general chairman?

12 Did you get a call for papers? Where did you get it?

13 What was the title of your paper / short abstracts / extended abstracts?

14 Did you get a volume of abstracts / abstracts volume before the conference?

15 What are the ways of getting information about conferences?

16 What information did you write in the application / registration form?

17 Were you included in the mailing list?

18 Did you pay a registration fee? Was it high? What does a registration fee depend on? What advantages does it give to participants?

19 What were the working languages?

20 Did you get a registration kit / package/file, a conference program, a guide / guidebook, or a street-map?

21 Was there any information on notice boards?

22 Did the conference take place in lecture halls / meeting rooms / lounges?

23 Did you or any other participants use any public address system or audiovisual equipment: slide projectors, videorecorders, power points?

24 Did you have any social program?

25 Who gave a welcome address?

26 Who were the speakers at the plenary sessions?

27 Was your paper solicited or free?

28 How many working parties / groups were there at the conference?

29 What is a panel discussion? What opportunities does it give to participants of the conference?

30 Have you ever been to round table discussions / round tables? What were they like?

31 What opportunities do exhibitions / exhibits / displays give to the participants?

32 Did you take part in professional / technical excursions / field excursions / trips?

33 What may the success of the conference depend on?

Grammar

Exercise 12 Revise «The Infinitive/Gerund/Participle» and do the following tasks:

a) *Translate the sentences with the infinitive constructions:*

1 Though the idea proved to be correct and gave this area of studies a fresh impetus it took about tan years of painstaking experimental and theoretical work for it to be realized.

2 The scientists have shown this range of concentration to be optimal.

3 In fact, although some of the evidence would seem to support this expectation, some do not.

4 The forecast based on instrument readings turned out to be timely this time too.

5 I saw them guess beforehand the results of complicated laboratory analyses.

6 This was taken to be dye to the presence of H20.

7 This technology despite its brilliant perspective is unlikely to be in wide use in the near future.

8 The psychological barriers make it difficult for man to live subjected to the rapid pace of life in the modern world.

9 If the activity is indeed the controlling factor, then our data would appear to stimulate this activity.

10 The breakthroughs in this science are expected to be conducive to the emergence of fundamentally new technologies.

11 The results of the three-year-long experiment proved to be a success.

12 Scientists, however, expect these programmes to supplement each other very well.

13 Perhaps such a point of view might seem to be too bold.

14 This was not found to be the case.

15 A period of 60 sec was allowed for water to move in the tissue.

16 The devise is very simple to use and is expected to be on sale by the end of the year.

17 The scientific forecasting of the changes in nature likely to take place under the effect of human activity is assuming growing importance.

18 The systems have been tested and, found to be highly reliable.

19 Truly this technique can be said to have achieved respectability.

20 No system selection criteria are given because we assume the reader to be familiar with basic concepts.

b) *Translate the text paying special attention to underlined parts:*

THE EIGHTH INTERNATIONAL CANCER CONGRESS

68 flags, signifying participants from as many countries, flew at the main entrance of the imposing Moscow State University during the Eighth International Cancer Congress held in Moscow during July 22–27, 1962. Estimates of the number of persons attending the six-day meeting varied from five to nine thousand. The international congresses sponsored by the International Union Against Cancer, are held every four years to give scientists from all countries an opportunity to discuss developments and exchange ideas on every aspect of the cancer problem. Nine hundred

or more papers, as well as a number of scientific exhibits and films were presented at the 1962 meeting.

The scientific sessions, some 78 in number, were held in six halls of the massive new buildings of Moscow State University on Lenin Hills. The opening and closing ceremonies, however, were held in the Palace of Congresses in the Kremlin.

For many delegates this was a first visit to Moscow and there was considerable curiosity about accommodations, facilities, surroundings, and attitudes to be encountered. But both the hospitality and organization were certainly praiseworthy. Transportation – an obvious problem because of language difficulties and the six-mile distance to the University from the hotels in which most visitors stayed – was remarkably easy; accommodations were good, and the two formal entertainments of the Congress were excellent. As a whole, the Congress proved to those who attended to be an enjoyable and stimulating experience. In affording this opportunity to exchange scientific ideas on a world-wide basis, the Eighth International Cancer Congress achieved its purpose.

c) *Translate the sentences paying attention to gerunds and infinitives:*

1 An individual's research should be correlated with group studies.
2 As a rule, the scientist plans experiments to test his hypothesis.
3 Knowledge is sure to be one of the most treasured possessions in the world.
4 Many key discoveries turned out to lie at the crossroads of different sciences.
5 Scientific forecasts are likelt to lead to new discoveries.
6 The problems are still far from being completely understood.
7 The date obtained agree with the previous findings.
8 The first consistent results were supposed to be received after experiments.
9 The joint work on this problem will be completed in a year.
10 There are various ways of solving scientific and technological problems.
11 Any investigation seems to have an underlying aim.
12 This method is practical to apply.
13 Each experiment happened to be repeated at least three times.
14 The story of the concept's origin is worth reading.
15 The research is proved to be of exceptional scientific and technical value.
16 Scientists have tried to make future projections of the method.
17 Other investigators are expected to describe similar methods.

Тема 7 My Research Work

Exercise 1 Read a few stories written by post-graduate students/professors about their research work. Find the answers to the following questions:

1 Which of them focuses especially on co-configuration as a new way of organizing work, and expansive learning in multi-activity settings?

2 Whose aim at intertwining practical-discursive and developmental-reflexive dimensions of activities?

3 Which of them is interested in a computer- mediated world?

4 Which of them is/are a professor?

5 Which of them has a Ph.D in sociology?

6 Which of them served as Director of the Laboratory of Comparative Human Cognition from 1990 to 1995?

7 Which of them uses reflexive methods of data gathering and analyzing?

8 Which of them has just finished a new book, Collaborative Expertise: Expansive Learning in Medical Work?

9 Which of them works in the Change Laboratory?

10 Which of them tries to make pedagogical changes from procedure-oriented drill to problem- and principle-oriented knowledge production?

11 Whose research groups use intervention tools?

12 Whose current research is focused on health care organizations, a bank, etc.?

13 Which of them is a doctoral student?

a) My name is Habbert Wesly. I am interested in cultural-historical activity theory and developmental work research in general. Currently, I focus especially on co-configuration as a new way of organizing work, and expansive learning in multi-activity settings.

I am Professor of Adult Education and Director of the Center for Activity Theory and Developmental Work Research at University of Helsinki. I am also Professor of Communication at University of California, San Diego, where I served as Director of the Laboratory of Comparative Human Cognition from 1990 to 1995. I am Honorary Professor in the School of Education at University of Birmingham, UK.

I work within the framework of cultural-historical activity theory. I am known for my theory of expansive learning. I study transformations in work and organizations, combining micro level analysis of discourse and interaction with historical analysis and modeling of organizations as activity systems working through developmental contradictions.

My research groups use intervention tools such as the Change Laboratory, inspired by Vygotsky's method of dual stimulation, to facilitate and analyze the redesign of activity systems by practitioners. My current research is focused on health care organizations, a bank, and a telecommunications company striving toward new forms of co-configuration and knotworking.

My recent books include Cognition and Communication at Work (edited with David Middleton, 1996), Perspectives on Activity Theory (edited with Reijo Miettinen and Raija-Leena Punamäki, 1999), and Between School and Work: New Perspectives on Transfer and Boundary Crossing (edited with Terttu Tuomi-Gröhn, 2003). I have just finished a new book, Collaborative Expertise: Expansive Learning in Medical Work, to be published by Cambridge University Press.

b) My name is Jeffry Stane. My current research has liaisons to the beginnings of Developmental Work Research two decades ago. Since then, my colleagues and I have used reflexive methods of data gathering and analyzing, such as stimulated recall interviews, on line video interviews, and interactive ethnography. My interest in

reflexivity has expanded in the context of social science to questioning: what are the theoretical and methodological tools with which we can approach and operationalize reflexivity – not only related to people's accounts of their lives and activities but also linked to the researchers' role and research practices. In the field of situated communication, my studies aim at intertwining practical-discursive and developmental-reflexive dimensions of activities, and at elaborating the epistemology of change in studying culture in interaction.

The possibilities of working with such interests in mind are favorable in the context of an interventionist methodology called the Change Laboratory. The approach has been developed by researchers at our center (including myself) in Developmental Work Research projects in varied fields of working life.

I work to further develop my expertise in institutional discourse, genre studies and interactive ethnography, and employed epistemologies like Mikhail Bakhtin's dialogism, ethnomethodology and phenomenology, interstecting them with activity theory (see 'the method of voices' 1995, 1999). The basic design of the Change Laboratory keeps concerning me with institutional transformations, co-configuration between the practitioners and researchers, distributed work order, and discussions related to neoinstitutionalism. In the context of institutional change, my current work on reflexivity draws from the analysis of experiencing and agency. When one puts on the 'eyeglasses' of activity theory, experience is not only internal and subjective but expands to include collective artifact-mediated activity.

The central contents of my research and special expertise arise from our research sites. In the field of health care (from the perspectives of organizational studies and medical sociology), our studies concern negotiated care, collaborative artifacts, boundary crossing between primary and specialized medical care and, at once, the patient's participation in the joint construction of a comprehensive view of disease management.

My other field of interest is school education and knowledge work in new information technology environments. Like in health care, our central focus here is on new forms of work and collaboration which are enabling the object of school work to expand beyond the information given in curricula and texts. We integrate paradigmatic thoughts into questions concerning how to make pedagogical changes from procedure-oriented drill to problem- and principle-oriented knowledge production, and from encapsulated classroom work to networked learning in partnerships between the school and other organizations.

Short Biography

From the 1980s and 1990s to the present, I have been employed mostly by the research projects funded by the Academy of Finland and conducted at the University of Helsinki. Between 1987 and 1995, I worked for five years as a visiting scholar at the Laboratory of Comparative Human Cognition, University California in San Diego. In 1999, I received my Ph.D in sociology from the University of Helsinki. Currently I am a Senior Researcher at the Center of Excellence and mentor of a group of Ph.D students.

c) My name is Stephanie Freeman. Speaking about my research work I must mention the following: How are new forms of Internet-mediated peer-production (such as is Free/Libre/Open Source Software (FLOSS) and Wikipedia) changing the relation between developer and user, author and publisher, expert and lay person? What motivates people to contribute? To whom is participation open? Finding answers to the question of the possibilities and problems of participating and acting in one's computer-mediated world, is at the heart of my dissertation research.

The problem of motivation (and participation) is also theoretically interesting and challenging. Individual-psychological theories of motivation are problematic because motivation is seen as happening "inside the head of an individual" isolated from social and cultural reality. However, Cultural-Historical Activity Theory (CHAT) and Cultural Psychology offer promising tools for studying both volunteers' individual motivation and the collective motive of their work. By examining the relationship between the individual and the collective, I wish to contribute to the development of CHAT.

My PhD thesis will comprise of four articles. Articles 1 and 2 are based on data collected from the hybrid firm-Free/Libre Open source community project OpenOffice.org, which develops a complete set of Free/Open Source Software Office end-user applications.

1) 'The Social and Material Dynamics of Motivation: Contributions in Open source Language Technology Development(forthcoming examines OpenOffice.org contributors' motivation as dynamically and historically developing;

2) 'The emerging role of the user in end-user FLOSS' (in progress);

3) 'The struggle of choosing between Open Source and proprietary software in the Finnish public sector' is based on data collected from four public sector organizations: The Finnish Meteorological Institute; The Justice Department, The Ministry of Finance and Turku town (in progress);

4) This article will deal with the practices of article-approval in the Finnish Wikipedia (about to begin data collection).

Short Biography

I was born in Savonlinna 21.2 1973 to a Finnish-English bilingual family.I spent my childhood and early adulthood in Jyväskylä.

After graduating from Helsinki University Department of Education (with Adult Education as my major and Psychology, Speech Communication and Management as my minor subjects), I started as a doctoral student in Professor Reijo Miettinen's research group 'Innovation and Organization of Research Work' in 2003. I also belong to The Finnish Post-Graduate School in Science and Technology Studies.

d) My name is Alison Stibbe. After a visit to Norway in 1995 I decided that I would like to learn Norwegian. After moving house and having a fourth child, I joined the Department of Scandinavian Studies in 1999 to do a short course in Intermediate Norwegian Language having taught myself at home for a year. University regulations at the time allowed me to sit the summer exam with the undergraduates.

My success was such that my tutor (Margarethe Alexandroni) and fellow students encouraged me to return the following year to do the course in Advanced Norwegian

Language. Regulations had changed, but I was permitted to sit the exam privately in a room in the department, obtaining the highest marks in the group. Along side this course I also read for and wrote an Extended Essay in Modern Scandinavian History on Hans Nielsen Hauge and Secularisation in Nineteenth Century Norway.

Encouraged by now Head of Department, Mary Hilson, I realised this essay could form the basis for a post-graduate dissertation. In order to convert my undergraduate degree in Natural Sciences (Cambridge, 1983) to an Arts qualification from UCL that would enable me to apply for Graduate School funding, I was prompted by Helen Forsas-Scott to register for a part-time MA in Advanced Scandinavian Translation (2001–2002). This MA was funded by a fees only scholarship from UCL Graduate School. My MA dissertation included the first translation into English of Hans Nielsen Hauge's Betragtning over Verdens Daarlighed (1796) with an accompanying commentary (available if you mail me). As a result of my MA , I acted as the translator of Knut Tveitereid's En helt overkommelig Bibel, published in English as Word Bytes – a completely manageable Bible (BRF 2003).

In 2003 I registered as a part-time PhD student to begin work on an inter-disciplinary project Hans Nielsen Hauge and the Prophetic Imagination under the supervision of Marie Wells. I funded my study by various freelance writing projects, including the infamous books of wit and wisdom for women Bursting at the Seams (Monarch 2004) and All Stiched Up (Monarch 2005). In summer 2004, I was granted an award by the AHRC which enabled me to finish my PhD as a full-time student. I submitted my thesis in February 2007 and my viva was held in June. I was privileged to have Prof Arne Bugge Amundsen from University of Oslo and Dr Jorunn Okland from University of Sheffield as my examiners. They were genuinely impressed with what I had achieved.

I had hoped to continue my studies of Hauge's early texts (1800–1804) with a post-doc fellowship from the British Academy, but although I was short-listed, I was not ultimately successful. I am told that to get so far in the competition was an achievement in itself. Health issues have made me to decide not to persue other sources of funding or reapply to the British Academy, but I do hope to try and get my corrected thesis published as a monograph by Paternoster Press if they decide to accept it.

I am now working two days a week as a student administrator at West Herts College of Further Education in Watford, which is near my home. I hope to study for the European Computer Driving Licence one day a week at the same college this academic year. I also work one day a week as the administrator for a newly founded charity, and spend the final day a week running my own business from home. I have been a freelance writer of women's Christian devotional literature for ten years and I am currently toying with a contract for a follow up to my book “Barefoot in the Kitchen”. Weekends I spend with my family and when I have the energy I try to maintain one and a half vegetable allotments in the face of an army of slugs.

The abstract of my PhD thesis is printed below. If you want to read the whole document you can order a copy from the University Library at UCL via inter-library loan.

I have electronic copies of Hauge's first four texts available, if any one wants to use them for research purposes then please feel free to contact me (otherwise they are copyright).

If you want to mail me about anything concerning my thesis, I can be reached on aliestibbe@aol.com

Exercise 2 Answer the questions given below. While answering them use the following phrases:

My field of research is … .

The problem I		am studying concerns …	
		study …	
		investigate …	
		do research on …	
		carry out an investigation of …	
		undertake a study of …	
I am engaged in	studying	the activity	
	investigating	the function	
	researching into	the nature	of
		the structure	
		the effects	
		the action	
		the courses	
		the influence	
		the properties	
The main aim of my investigation		to find out …	
The chief purpose of my work	is	to discover …	
The primary objective of my research		to obtain …	
		to assess …	
		to demonstrate …	
		to show …	
		to test …	
		to check …	
		to verify …	
The problem I'm trying to solve	is	…	
The problem I'm studying			
The investigation I'm carrying out	is	interesting	
		fascinating	
		important	
		of practical importance	
		of fundamental value	

		involves certain difficulties
		presents some difficulties

In my work I	turn for help to	my supervisor
	turn for advice to	my colleagues
	consult	my Chair Chief
	discuss things with	
	consult standard reference books	

I carry out		to determine the parameters of …	
make	experiments	to examine facts about (questions	
perform		concerning …)	
		to measure the rate of (the amount of …)	
		to obtain data on …	
		to test the validity of …	
		to provide evidence for …	
		to reveal the causes of …	
		to find out whether …	
		to confirm	the idea
			the theory that
			the hypothesis

I managed	to give	good		showing	
	to present	strong	evidence	suggesting	
	to provide	sufficient	data	indicating	
	to obtain	convincing		which show(s)	that …
		interesting		suggest(s)	
		promising		indicate(s)	

The evidence	is		certain	theoretical importance
These data	seem to be	of	some	practical value
	are		great	experimental value

The techniques I use (apply) are as follows … .
The procedure I follow in my experiments is like this: … .
The facilities I need for my work include … .

Questions:

1 What are you? What is your occupation?

2 When and what higher educational establishment did you graduate from?

3 How long have you already been working at the Byelorussian Academy of Sciences?

4 Are you a research worker or a postgraduate?

5 What area of science are you concerned with?

6 Are there many unsolved problems in your field of knowledge?

7 What problem do you deal with?
8 How many years have you been working on this problem?
9 Have you got acquainted with the literature available?
10 How is this problem being tackled in the Soviet Union and abroad?
11 What famous scientists are engaged in this problem?
12 What is it that causes scientists to have such a great interest in this problem?
13 How do you approach the problem you work on?
14 What methods do you use in your work?
15 What is the essence of your method?
16 What theory is your research based on?
17 Is your work of theoretical or practical importance?
18 Have you already collected and arranged the necessary data?
19 Do you collaborate with anybody in your work or have you a particular topic?
20 Do you consult anybody on the problem you are interested in?
21 Who is your scientific supervisor?
22 What is his contribution to science?
23 Do you carry out any experiments?
24 What instruments do you use?
25 What measurements do you make?
26 What substances do you employ?
27 What progress have you made in your work?
28 When will you finish your work on the problem?
29 Have you obtained any promising results?
30 Are there any practical results to come out of your efforts?
31 What is the importance of your work for our notional economy?
32 What difficulties do you face in your work?
33 What conclusions have you come to in your research?
34 Are any seminars held at your lab?
35 Do you attend them?
36 How often are the seminars held?
37 What is the aim of the seminars?
38 What problems do you discuss at the seminars?
39 What questions attract your attention?
40 Have you got any scientific publication?
41 What are the subjects of your papers?
42 Have you ever participated in the work of scientific conferences, symposia?

Exercises 3 Speak on your research work, using the given plan:
1 Area of science you are concerned with.
2 Subject of your research.
3 Topicality of the problem you deal with.
4 Experimental data.
5 Theories and concepts used.
6 Methods of research.
7 Material treatment.

8 Research equipment.
9 Cooperation with other researchers.
10 Research supervision.
11 Results evaluation.
12 Presentation of research results.

Grammar

Exercise 4 Revise «Conditionals» and do the following tasks:

a) *Translate into English:*

1 Ты бы расстроился (be upset), если бы тебя не пригласили на конференцию? 2 Будь он внимательнее, он бы не допустил такую ошибку. 3 Если бы наш коллега не сообщил нам о конференции, мы бы не успели вовремя подготовить доклад. 4 Ты бы пошла в библиотеку, если бы тебе нужно было подготовить устную тему? 5 Мы бы участвовали в эксперименте, если бы вы позвонили вчера вечером. 6 Если бы он мог дать положительный (positive) ответ, он бы давно это сделал. 7 Я бы на твоем месте не стал бы поднимать такой шум (raise a clamor). 8 Если бы ты принял его предложение, ты бы давно работал в хорошей лаборатории. 9 Будь я на вашем месте, я бы пошел пораньше, чтобы застать научного руководителя.

b) *Translate into English:*

1 Как жаль, что он пришел так поздно. Мы не успели поговорить о наших статьях. 2 Как жаль, что он не разработал этот проект. 3 Как жаль, что нам придется так скоро уехать. 4 Обидно, что вы не дождались прихода профессора. 5 Я теперь жалею, что не послушался его совета. 6 Обидно, что вас не поняли. 7 Жаль, что вы упустили такой шанс. 8. Обидно, что ей придется отказаться от такого предложения. 9 Как жаль, что он работает допоздна. 10 Он пожалел, что не съездил на симпозеум. 11 Я бы очень хотела оказаться сейчас в институте. 12 Как бы мне хотелось говорить по-английски так же хорошо, как он.

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для аспирантов и магистрантов

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